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ARCHAIC STELE IN BOSTON

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AN ARCHAIC GREEK GRAVE STELE IN BOSTON

[PLATE VII]

THE fragmentary grave stele of a youth, reproduced on PLATE VII and in Figures 2 and 3, has recently been acquired by the Museum of Fine Arts in Boston.¹ Although more than half of the original monument is lacking, the preserved portions fortunately include all the significant elements of the composition. The stele was of the tall, slender form prevalent in the sixth century. It terminated in a flat crowning member, which was undecorated except for the inscription giving the name of the youth and a horizontal band of incised spirals at the top. The nude figure of the youth, carved in moderately low relief, stands in profile to the right with his left leg advanced. In his right hand, which is extended in front of him, he holds an aryballus by a strap. His left hand is raised to the level of his head, and holds up a stem with two pomegranates. He is crowned with an olive wreath, presumably in token of an athletic victory.

Of the five fragments² which are said to have been found together in the neighborhood of Thebes, four undoubtedly belong to the same stele; the connection of the fifth is probable though less certain. All are of Attic marble of a slightly dull tone, verging more toward gray than yellow. The relative positions of the fragments (A-E) are indicated in the drawing, Figure 1, an attempt at a restoration of the complete monument. A description of them follows:

¹ Register No. 08.288. *Annual Report of the Museum of Fine Arts*, 1908, p. 59.

² A sixth, small fragment, mentioned in the Report, shows two slightly concave surfaces roughly at right angles to one another. It can hardly have formed part of the stele, and is left out of consideration here.

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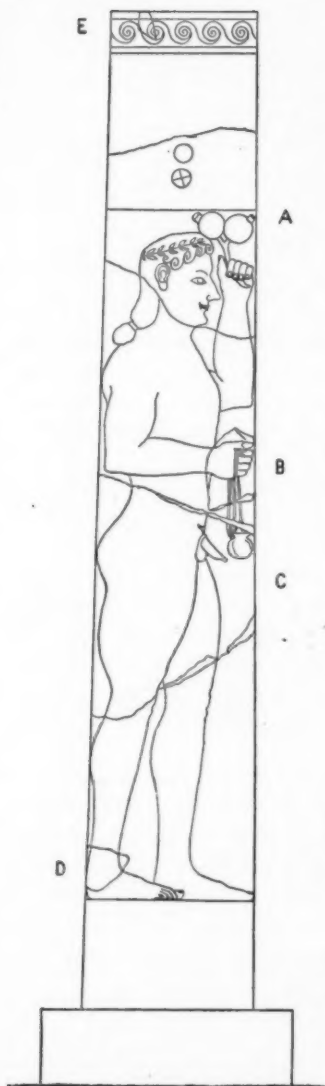


FIGURE 1.—ARCHAIC GREEK STELE
IN BOSTON, RESTORED.

A. Fragment 0.513 m. high, broken at the top and bottom, containing the lower part of the crowning member, the head of the youth, and his raised left hand holding the pomegranates. Above the head the background curves forward and is continued by a flat surface the plane of which is raised slightly beyond the highest level of the relief. On this crowning member are the remains of the inscription, running vertically upwards. The first two letters, \otimes \circ , are 0.047 m. in diameter. At the broken edge of the stone is the lower half of a vertical stroke of the third letter. The name must remain uncertain. It can hardly have had more than six letters; $\Theta\acute{\omega}\rho\alpha\varsigma$ might be suggested, or $\Theta\acute{\omega}\alpha\varsigma$ (the alpha of this shape: A), but there are many other possibilities.¹

The background of the relief varies considerably in depth (0.02 to 0.04 m.). At the sides it curves forward slightly towards the edges; the flat fillet, which on many of the stelae

¹ The position of the inscription is unusual. We may compare the names inscribed on vase paintings which usually begin near the head and run in whatever direction is most convenient. The name $\text{A}\gamma\alpha\delta\iota\omega\tau\iota\varsigma$ on the stele from Korseia (*Ath. Mitt.* IV, 1879, pl. XIV, 2) is carved on the background to the right of the head.

of this type serves as a framework for the representation, is here omitted. Except at the back the head of the youth is preserved down to the neck, but portions of the nose and chin have been broken off. A strongly individual character is given to the face by the rendering of the profile, with its bulging forehead, long and protruding nose, and prominent chin. The mouth is rather crudely carved, the lips being straight and angular, and clumsily twisted up at the end. The eye is large and shown in front view, with lids formed as narrow ridges rising rather sharply from the depressions above and below. The flat eyeball is not sunk, but simply marked off from the lids by an incised line. On it the outlines of the iris and the pupil are also incised, while a deeper groove marks the line of the brow. The ear, placed vertically and too high, is noticeable for its large, flat lobe and for the round form of the cartilage that protects the orifice. Except for a row of large spiral curls from the front of the head to the ear, and a smaller one placed above the ear, the hair is treated as a simple mass covering a skull somewhat angular in outline and remarkably narrow from front to back. The hair was undoubtedly worn long, and may have been confined near the end by a band wound several times around it as on the well-known head of a youth with a discus¹ and the stele of a youth with a spear found by Noack in the Themistoclean wall at Athens.² The stem of the wreath and the outlines of some of the leaves are rendered by incised lines; others have their whole surface sunk. No remains of color are discernible on this or any of the fragments.

B. Fragment 0.202 m. high, 0.122 m. wide, broken except at the right edge. It shows the right hand of the youth holding the strap of the aryballus which is preserved on fragment *C*. A small portion of the abdomen, with indication of the navel, is preserved below the wrist. The thumb and forefinger are injured.

C. Fragment 0.585 m. high, broken at the top and bottom, including the body of the youth from the waist to the knee, and in front of him the aryballus with indications of the strap by which it was suspended. The rendering of the large, muscular

¹ *Die attischen Grabreliefs*, I, no. 5, pl. IV.

² *Ath. Mitt.* XXXII, 1907, pp. 514 ff. pl. XXI.

thighs is decidedly superior to that of the head, which, with all its life and individuality, is carelessly executed. The outlines of



FIGURE 2.—FRAGMENT *D* OF STELE IN BOSTON.

to the use of incised lines for details is illustrated on this fragment by the indication of the pubes. The aryballus is 0.062 m. high and of the common globular shape. Most of its surface is broken off, but the remains at the sides are sufficient to show that it was elaborately decorated in relief with a tongue pattern on the shoulder, a chain of alternating lotus flowers and buds around the body, and crescents radiating from the bottom.¹

D. Fragment broken except at the left edge, containing the right ankle of the youth. Parts of the surface are chipped off. Height, 0.09 m.; width, 0.093 m. (Fig. 2).

E. Fragment 0.068 m. high, 0.043 m. wide, broken except at the top (Fig. 3).

the legs are vigorous in design and carefully carved; the transition to the background is everywhere skilfully rounded in such a way as to increase the effect of bulk and muscular development, though the relief is here exceptionally low; the subtle variation of the surface, visible only in a favorable lighting, is successfully reproduced in the photograph. A tendency



FIGURE 3.—FRAGMENT *E* OF STELE IN BOSTON.

An incised line runs

¹ Godroons occur frequently on the shoulder of aryballi. For the crescents, cf. Collignon et Couve, *Catalogue des Vases peints du Musée National d'Athènes*, 479; Pottier, *Vases antiques du Louvre*, E 612, pl. 43.

horizontally across the face 0.018 m. from the top. Above this line the surface is smoothed. On the lower part, which is left somewhat rough, are the remains of a band of incised spirals. If the fragment belongs to the stele, it must be assigned to the top of the crowning member, as indicated in Figure 5. For the surface visible at the top in the photograph must be the upper surface of the stele, since it is roughly tooled, whereas the sides of the stele are everywhere carefully smoothed.

The evidence afforded by fragments *A* and *E* as to the shape of the crowning member is of especial interest, since the tops of most of the well-known stelae of this type are not preserved. Until recently it was supposed that the crowning member was regularly in the form of a palmette.¹ But the top of an Attic stele extracted by Noack from the Themistoclean wall² is a simple flat slab (see the drawing,

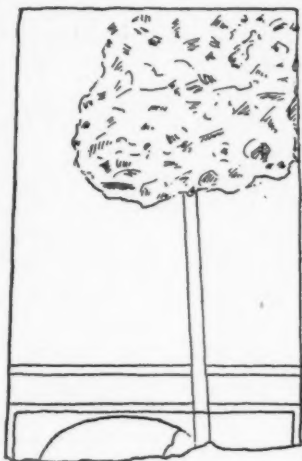


FIGURE 4.—TOP OF STELE FROM THE THEMISTOCLEAN WALL.

Fig. 4, after German Institute Photographs, *Ath. Var.* 251). At the bottom the fragment includes a part of the head of the person represented. He carried a staff, indicated only by incised lines running up on the crowning member and surmounted by a large object which was carved in relief and later chiselled off. With the help of this fragment, the top of the stele in Boston can be restored with reasonable certainty, as shown in Figure 5. The band of incised spirals at the top may be compared with the incised lines at the bottom of the fragment in Athens, which probably enclosed a similar decorative pattern rendered simply by paint.

In the restoration of the complete monument, Figure 1, its

¹ Furtwängler, *Sammlung Sabouroff*, text to plate II. Brueckner, *Ornament und Form der attischen Grabstelen*, p. 60.

² *Ath. Mitt.* XXXII, 1907, p. 541.

height has been estimated as about 2.34 m., the height of the figure as 1.57 m., or about $7\frac{1}{2}$ heads. The figure would then be somewhat shorter than the youth with the spear found by Noack (about 1.70 m.) and than Aristion (1.77 m.).¹ At the level of the feet the stele must have been about 0.407 m. wide (Noack stele, 0.42 m.; Aristion, 0.453 m.). Its width, measured at the top of the head, is 0.355 m., showing a diminution

of 5 cm., which is nearly the same as in the Noack stele and considerably greater than in the stele of Aristion. The decrease in the thickness of the shaft cannot be accurately calculated; fragment A, measured at the top, is 0.115 m. thick.

In its definite characterization of the youth as an athlete by means of the aryballus and the wreath, the stele is a companion piece to the Discophorus in Athens. It furnishes a new variation from the oft-repeated theme of the man with the spear, a composition whose popularity is doubtless explained by the fact that it was most easily adapted to this slender form of monument.

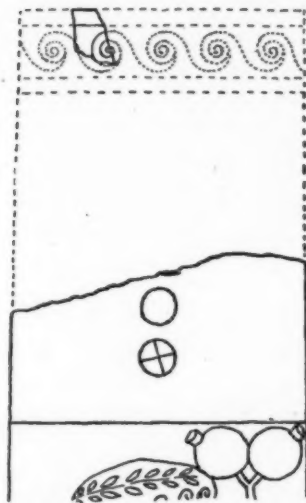


FIGURE 5.—TOP OF STELE IN BOSTON, RESTORED.

The motive of a flower or fruit held in the upraised hand is familiar enough in archaic sculpture. There may be a funerary significance in the pomegranates, since that fruit was especially associated with the Chthonian divinities.²

The stele is an interesting addition to the series of archaic statues and reliefs, which, though found in Boeotia, are of Attic origin, or at least strongly under Attic influence. When their material is native Boeotian limestone, these works have gen-

¹ Measured from a cast. The total height of the monument is given as 2.40 m. in *Die attischen Grabreliefs* and in Καρσαδίας, Γλυπτὰ τοῦ Εὐρυκοῦ Μουσείου, No. 29, but this is evidently incorrect.

² Cf. P. Gardner, *Sculptured Tombs of Hellas*, pp. 82, 183.

erally been held to be local imitations; but those which are made of Pentelic marble have some claim to be attributed to Attic sculptors.¹ Considered by itself, the material cannot, of course, furnish a decisive argument. It is possible, for example, that the stele of Gathon and Aristocrates, from Thespieae,² with its somewhat clumsy treatment of the nude forms and careless execution of the drapery, is the work of a native artist.³ On the other hand, Lechat⁴ and Mendel⁵ are doubtless right in considering the fragmentary replica of the stele of Aristion in the Museum at Thebes a genuine Attic work. No hesitation can exist in regard to the unpublished relief of a horseman in Boston. Though found in Boeotia, it is "a remarkably fine specimen of the work of the Attic school at the beginning of the fifth century."⁶

In the work under discussion the Attic characteristics are strongly marked. It suggests immediately a comparison with sculptures executed early in the age of Pisistratus, in which the influence of the imported "Chian" artists has not as yet greatly affected the earlier Attic style. In the series of grave reliefs it is to be grouped with the Discophorus and the Finlay head.⁷ While decidedly inferior in execution to both these works, the head, with its erect carriage, irregular profile, widely opened eye and prominent cheek bone, has something of their vigorous life and individuality. The correspondence in the execution of details is equally striking. The eye, for example, is very similar to those of the above-mentioned heads in its size and shape, in the absence of the prolongation for the lachrymal gland, and in the rendering of the upper lid as a groove. The ear, also, is of the distinctively Attic type found with some

¹ Cf. G. Koerte, 'Die antiken Skulpturen aus Boeotien,' *Ath. Mitt.* III, 1878, pp. 301 ff. (description): *ibid.* IV, 1879, pp. 268 ff. (discussion). Mendel, *B. C. H.* XXXI, 1907, pp. 204 ff. Figs. 13-15.

² Koerte, *Ath. Mitt.* III, 1878, p. 311, No. 5. Brunn-Bruckmann, *Denkmäler*, Taf. 37. Perrot et Chipiez, *Histoire de l'art*, VIII, Fig. 344.

³ Lechat, *La sculpture attique*, p. 296, calls it Attic, and in note 3 cites Koerte (*Att. Mitt.* IV, 1879, p. 272) and Loescheke (*ibid.* p. 295) as of the same opinion. Their statements, however, are less positive than he implies.

⁴ *La sculpture attique*, p. 292, Fig. 24.

⁵ *B. C. H.* XXXI, 1907, p. 204, Fig. 13.

⁶ Robinson, *Annual Report of the Museum of Fine Arts*, 1899, p. 22, No. 2.

⁷ *Sammlung Sabouloff*, I, pl. II. *Die attischen Grabreliefs*, I, No. 6, pl. V.

minor variations in a long series of works from the *poros* sculptures and the Moschophorus down to the stele of Aristion. The large, flat lobe and the round form of the small cartilage above it are identical in the Sphinx from Spata,¹ the *kouros* from Kalyvia,² and the head of a girl on a fragmentary stele in Berlin,³ to mention only a few of the closest parallels. The use of engraved lines for details (eyebrow, iris and pupil, pubes, wreath, strap of aryballus, band of spirals) is another characteristic of early Attic marble sculpture, which is well illustrated again by the Sphinx from Spata, even to the unusual detail of the incised eyebrow. The emphatic rendering of the bony structure, seen especially in the cheek and chin, the right hand and the ankle, is another early Attic trait. On the other hand, the carving of the thighs, with their finely curved outlines and softly varied surface, seems to show Ionian influence. The arrangement of the hair over the forehead in a series of clumsy spirals, as on some of the more primitive Apollos,⁴ is unexpected in Attic work. The early colossus from Sunium⁵ seems to be the only example among sculptures found in Attica; such spiral curls occur frequently, however, on Attic black-figured vases. Certain minor defects, such as the careless carving of the mouth and the eyeball, and the incorrect rendering of the muscles at the side of the knee, are not sufficient to disprove the Attic origin of the relief. Its date must be placed between

¹ A photograph showing this feature clearly in *Jh. Oest. Arch. I. XII*, 1909, Fig. 135, p. 263.

² Perrot et Chipiez, VIII, p. 403, Fig. 190. The form of the ear is only one of the Attic traits which Lechat (*La sculpture attique*, p. 254) has pointed out in this statue which Perrot held to be purely Ionian.

³ Kekule von Stradonitz, *Sitzungsberichte der Berliner Akademie*, 1902, pp. 387 ff., 2 figs.; also *Die Griechische Skulptur*, pp. 14 ff. Perrot et Chipiez, VIII, Fig. 340, p. 662. Kekule has emphasized the points of resemblance between this beautiful head and the head of Aristion. It may well be contemporaneous with the latter, but it is the work of a sculptor who clung more to the earlier Attic traditions, and thus it helps to bridge the gap between the Discophorus and Aristion. The ear and especially the eye are carved in the earlier manner, whereas the eye of Aristion is more true to nature in the treatment of the upper lid, in the prolongation at the inner angle, and in the rudimentary attempt at a correct rendering in profile. Above all, the life and individual character of the girl's head are in strong contrast to the "inert" and "sleepy" look of Aristion.

⁴ Cf. Déonna, *Les "Apollons archaïques"*, p. 108.

⁵ *Ibid.* p. 137, Figs. 16, 17.

the years 540 and 500 B.C. It combines, as we have seen, some later Ionian elements with many characteristics of the Attic marble sculpture of the middle of the sixth century. And being from the hand of a minor sculptor, it should be dated later than the finer works, such as the Discophorus, with which it has been compared. It is apparently the earliest and not the least interesting of the long series of grave monuments by Attic artists which have been found in Boeotia.

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A PAIR OF BLACK-FIGURED LECYTHI IN THE
WORCESTER MUSEUM

THE small collection of classical antiquities in the Worcester Art Museum has recently received an important addition in a pair of black-figured lecythi.

A (Fig. 1). Hermes Nomios driving a flock of sheep toward hill-pastures represented by a rock at the right. Branches in the field. Handle missing. No restorations.

B (Fig. 2). Two nude horsemen, carrying each a pair of spears and galloping to the right. Lip broken and mended in two places. No restorations.

Material: Deep red clay; black glaze, very lustrous except in figures and lower part of body. The handle shows brilliant greenish lustre of the best black-figured ware.

Decoration: On shoulder — above, rays; below, a series of inscribed palmettes set horizontally. On body — above, dots connected with zigzag strokes, between double parallel lines; below, meander between double parallels. At juncture of body and foot, band of red. Foot entirely black (the light band in the illustration is due to an incrustation not removed at time of photographing).

Dimensions:

	<i>A</i>	<i>B</i>
Height of whole vase,	0.161 m.	0.164 m.
Height from top to base of shoulder,	0.047 m.	0.043 m.
Height of foot,	0.008 m.	0.011 m.
Height of lip, including red fillet,	0.009 m.	0.008 m.
Height of picture space,	0.052 m.	0.054 m.
Diameter of shoulder,	0.072 m.	0.070 m.
Diameter of neck at smallest circumference,	0.018 m.	0.016 m.
Diameter of mouth,	0.038 m.	0.0345 m.
Diameter of foot,	0.040 m.	0.042 m.
Diameter of body at juncture with foot,	0.0165 m.	0.0175 m.

History: Purchased about forty years ago, from a private collection in Nice, by Miss Mary Bellows, and given in 1895 to the American Antiquarian Society of Worcester. From them, in 1910, purchased by the Worcester Art Museum.

These lecythi seem at first only good typical examples of a class common just before the change from black-figured to red-figured technique. They have the familiar proportions: a bowl wider in relation to its height than is the case with the later white lecythi, and tapering in a steady inward sweep from its greatest diameter at the shoulder to a slender foot. The draughtmanship, too, in the decorative parts, shows the exquisite accuracy of the best later black-figured work; while the figure-drawing has the masterly swiftness of touch and summarizing power of the happiest of the "Kleinmeister," or of Andokides or Epiktetos. Yet, on a closer acquaintance, they present certain traits of more than usual interest.

In the first place, the word "pair" is used advisedly, as a glance at the illustrations will show. For, apart from such slight variations in size and proportions as are inevitable in repeating a given form freehand, and from figure drawings which cannot be considered either in subject or composition as pendants, the two are identical in size, shape, and decoration. While this identity is not in itself striking (to mention only a single random example, there is a pair of very late black-figured lecythi in the Metropolitan Museum which vary as little as our vases), it is worthy of mention because many of the qualities which link our two vases serve to mark them off from other members of their class.

Their shape is, so far as I can tell from the originals within my reach or from the scanty published material, unique in two respects. For one thing, while all other lecythi of which illustrations are available show a clearly marked division between neck and shoulder, often (as in two instances in the Metropolitan Museum and at least two in the Louvre¹) emphasized by a slightly raised fillet, in ours the inward curve just below the mouth passes rapidly, but without a break, into a steady outward

¹ F 361 and F 188, both in Pottier, *Vases Antiques du Louvre*, II, pls. 86 and 77 respectively.



FIGURE 1.—BLACK-FIGURED LECYTHUS, 4, IN THE WORCESTER ART MUSEUM.

flare, so that there is no definite point at which the decoration of the shoulder might naturally begin. The nearest approach to the shape which I can mention is shown in Louvre F 71.¹ But even there, though the shoulder is steeper in slope and the neck more stubby than in developed examples, the point of juncture is clearly marked not only by a change in color, but by a raised fillet.

In the second place, the modelling of the lip and foot cannot be exactly paralleled. With the foot, which consists of a thin fillet resting on a delicately profiled, torus-like moulding, the difference is, perhaps, rather in execution than in type. The stepped bases of certain white lecythi may be considered a rude approximation to the form, though in almost all instances of which I know, the edge of the lower as well as of the upper step is vertical, and the proportions are not differentiated. In an example in the Metropolitan Museum, where the lower step does take the form of a curved moulding, the two divisions are more nearly equal in height than in the vases under consideration. The mouth, on the other hand, is a frankly individual type. In the lecythi with which I am familiar, the mouths fall into two classes: (*a*) the common type used for the white lecythi of the fifth century, a deep bell shape, flaring gradually, with height rarely less than two-thirds of its diameter; (*b*) a less shapely form, shallower and spreading abruptly from the neck. In both cases the whole member is usually black. In our vase the red clay neck itself, flaring outward and ending in a narrow vertical rim, forms a sort of socket. From this rises the lip proper, black as always, but relatively low and spreading. The whole is comparable, not only in the modelling of the lip itself, but also in the subtle suggestion of organic growth, to Doric columns of the late sixth century.

Another point in which the lecythi under consideration stand apart is the species of palmette that decorates the neck. A relatively narrow band of small palmettes, while in itself uncommon for a lecythus, is fairly familiar as a border on the crater, hydria or amphora form of the period of red-figured vases, and by no means rare in the later black-figured style. Of this particular form, however, — inscribed palmettes laid

¹ Pottier, *Vases Antiques*, etc., II, pl. 69.

horizontally and juxtaposed without connecting tendrils, — I have been able to find in a total of about three hundred vase drawings inspected only two other instances, both from the later part of the period when red-figured vases were made.¹

Such are the peculiarities which our vases possess in common: in shape, while the neck and shoulder approximate to a less developed stage, the foot and lip reveal an unusually



FIGURE 2. — BLACK-FIGURED LECYTHUS, B.

dainty, clean-cut articulation; in decoration, a form of palmette is employed which is rare on lecythi and not common on black-figured ware, a form, moreover, of which this particular species seems to be found only on late red-figured ware.

Considered separately, each presents a further point of inter-

¹ Crater in Arezzo, Furtwängler und Reichhold, pl. 61; and calpis once in the Canino collection, Gerhard, *A. V.* 28.

est in its pictorial representation. On *B* the figures themselves would be noteworthy only as types of the vividly conceived, nervous horses and riders of the late sixth century, were it not that they repeat, line for line, two horsemen out of a group of three on the shoulder of a black-figured hydria illustrated in Gerhard, *A.V.* pl. 35. The resemblance extends beyond the drawing of the single figures to the relative placing of the two. The instinctive suspicion of a forgery must give way before the evident genuineness of the piece,¹ so that we have here an instance of unusually close repetition of an atelier type.

A, on the other hand, with its representation of Hermes and his flock, claims attention for two reasons. In the first place, it may be unquestioningly identified with the vase published in Gerhard, *A.V.* pl. 19, as in the possession of Herr Klenze, of Munich, and which Reinach, in 1900, was unable to locate.² The form of vase there sketched has, it is true, the ordinary bell-shaped mouth and slender body of the early red-figured lecythi, the palmettes are omitted, and other decorative details loosely rendered; but the pictorial portion, while lax in quality, reproduces our composition detail for detail, even to the carelessly drawn object at the feet of Hermes (which may stand for a winged boot) or the clumsy kerykeion. The recovery of the vase ought to be of especial interest, as it appears to be the only published representation in vase-painting of Hermes Nomios.³

The conception of Hermes as the shepherd and patron of the flocks, whose origin is delightfully told in the Homeric hymn, had become so intimately inwrought with the god's personality that its representation in art had gradually condensed from narrative or picture to epithet and symbol. In place of the shepherd appears the "kriophoros"—the god with the ram on his shoulders or in his arms, or, at best, trotting beside him in some assembly of the Olympians, a faithful comrade like

¹ In its favor are not only the characteristic technique and the peculiarly Greek spirit of the drawing, but the fact that the glaze resists the action of alcohol.

² See the *Répertoire des Vases Peints*, vol. II, p. 25.

³ Roscher, *Ausführliches Lexikon*, etc., p. 2404.

Dionysus's panther or the hind of Artemis. But though Farnell¹ and Preller² both state vaguely that "the god may be represented driving his flocks," and Roscher gives a list of monuments in which he appears as shepherd,³ in every instance cited, of which I could find illustration or description, the flock is condensed into a single ram or goat grouped with his master as a conventional symbol. In one unpublished vase besides our own, a black-figured lecythus in the British Museum (B 549), the suggestion has begun to expand into a genuine pastoral. But even here, where the hill pastures are hinted at by the rock behind Hermes' couch and the tree that shades it, the flock is still reduced to a single goat. Only in the vase under consideration have we all the elements of the picture: the shepherd booted and cloaked, guiding with upraised hand the flock that surges along, rams and ewes together, in the confused tide that so often engulfs the wayfarer to-day on the lowland roads about Corinth or in the Attic plain; a mass whose outer edge already begins to break and scatter up the hill slopes. All is still condensed and suggestive, as it must be in true Hellenic art; the hills are a mere pillar of a man's height; the forest a pattern of conventionalized vines in the field. But the essentials of the scene are seized with a sure instinct: the tired, plodding gait of the shepherd, the hesitating recoil of the rearmost ewe, who feels that the flock has changed its course, but does not yet know whither; the forward lunge of the next group with its tangle of trotting legs; and, finally, the inquiring upreared head and clambering forefeet of the leader, who must find the hill path. Even the mountain, shorthand indication that it is, is right in its essential forms of crag, plateau, and talus-slope.

In this pastoral it is significant to note that the god has lost his commanding position as centre and become merely one of the elements of the scene, and not the most important one at that. Hastily drawn, dwarfed by his sheep, used to balance the rock as a bounding mass of the composition, it is evident that his divinity no longer awes or even interests the artist, but has become a mere mythical peg on which to suspend a charming "landscape with cattle." Such a pleasure in the

¹ *Cults of the Greek States*, V, p. 35.

² *Gr. Mythologie*, ed. 4, p. 420.

³ *Lex.*, s.v. 'Hermes,' p. 2378.

life of wood and hillside, for its own sake, has generally been considered an Hellenistic trait. Future study, however, may reveal a considerable class of late black-figured vases, which possess certain common traits in decoration and draughtsmanship, and whose subjects seem to have been chosen not for their mythological or even human interest, but simply with an eye to pictorial possibilities, a purpose proved by the use of trees, animals, and accessories as leading members in the composition. The publication of the present vases will be well worth while if it shall have its share in stimulating more sympathetic study of the conception of landscape in early Greek art.

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A ROMAN BOWL FROM BAGDAD

THE bowl described in this article is 4 inches in height, $7\frac{1}{2}$ inches in diameter across the top, and is carved from a block of gray marble streaked with black. Except for a piece broken from the lip and now cemented in place the vessel is intact. It was purchased in Damascus and was said to have come from Bagdad. I am publishing it through the courtesy of Professor Butler.

The decoration consists of two busts and a series of figures in low relief, carved on the exterior of the bowl, of such size as



FIGURE 1.—ROMAN BOWL; FRONT.

practically to cover the whole of the surface. These reliefs arrange themselves in three distinct groups and the choice of subjects represented by them seems to have been governed by caprice.

On the front of the bowl are two heads in profile, face to face to

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Archaeological Institute of America, Vol. XV (1911), No. 2.

face. The one at the right is bearded and wears a helmet, with a nondescript animal clambering over it, as a crest. The bust at the left, that of a woman, wears the hair classically arranged over a sphendone. This mode of hairdressing appears on Roman coins bearing the head of Sabina. Since, therefore, this name appears incised in the field between the two heads, it is reasonable to think of this bust as that of Sabina, and the one facing it as that of Hadrian; and, with an elastic imagination, perhaps one may see the likeness. Before leaving these reliefs, it is worth noticing that they are copied directly from busts in the round — probably in marble.

Passing to the right, we encounter the well-known Roman wolf and the twins. In the wolf we have a fairly faithful copy



FIGURE 2.—ROMAN BOWL; WOLF AND TWINS.

of the familiar archaic Roman bronze. Not only are the lips represented with the circular cut at the corner of the mouth as on the bronze, but the band of rough fur which passes over the shoulder behind the foreleg is here suggested by a band of scratches. The modelling of the figure is rather good. In reference to the position of the arms, the twins present some variations from the Renaissance group which is now associated with the wolf. This group is watched by a nude female figure which leans nonchalantly over a rail fence. Whom this figure represents it is hard to say; but an appropriate personage

for this place would be Rhea Silvia. If it is indeed she, then the artist intended that she should be understood to be

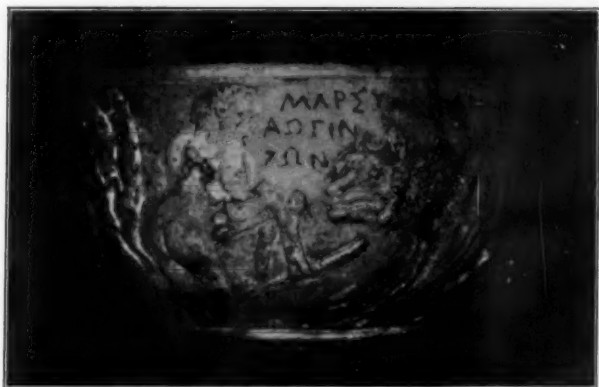


FIGURE 3.—ROMAN BOWL; FEMALE FIGURE AND WOLF.

standing in water, for the figure is cut off at the ankles. This amputation, however, is more probably due to the artist having



FIGURE 4.—ROMAN BOWL; WOMAN ON A SWAN.

miscalculated the amount of space necessary for the figure, which, in all probability, fulfils merely a decorative function and has no reference to the mother of the twins.

The third and last group of figures on the bowl seems to be made up of four full-length human figures and their attributes. Next to the wolf is a nude female figure seated unconventionally, with her hands clasped over her knee, on the back of a swan or goose. The creature, to be sure, has a crest; but, in late times evidently, the ancients liked this bird so decorated,¹ for, in the Coptic period, the goose sometimes wears a crest. The female figure riding upon the back of the bird I have ventured to put in the third group, because it is posed with its



FIGURE 5.—ROMAN BOWL; FEMALE FIGURE AND BIRD.

back to the wolf. The type is unusual, although a parallel is found in a Hellenistic relief of a half-draped woman riding a swan. The latter figure, however, is considerably earlier than the figure on the bowl. The combination of the nude female form and the swan, if it is that bird, might suggest Leda or even, perhaps, Aphrodite, were it not that an inscription behind the figure tells us that it represents Atalanta.

Just in front of the swan sits a half-draped woman with hands raised in what seems to be a gesture of surprise, while a bird rests on a sphere on her knee. The bird I take to be an eagle; for it closely resembles the imperial eagle found on Roman monuments.² But even if we are right in the interpre-

¹ Gayet, *L'Arte Copte*, p. 112.

² Reinach, *Rép.* II, p. 768, 5; Cohen, V, pl. III, 15.

tation of the meaning of the bird, we are little nearer to an understanding of the meaning of the figure on whose knees it is posed. By a very broad stretch of the imagination we might think that the maker of the bowl chose to use the Roman emblem to represent the cuckoo, with the intention of making the female figure stand for a likeness of Hera. But even this desperate hazard comes to naught when we read the name Pandora inscribed near the figure.

The next two figures are easy to identify. Asclepius sits at ease watching the serpent coiling about his staff and feeding



FIGURE 6.—ROMAN BOWL; ASCLEPIUS AND HYGIEIA.

from a patera held by Hygieia. The types in themselves are plain enough; but we are helped in our identification by the inscriptions near them.

With Asclepius we complete the circuit of the exterior. For the most part, the figures seem to defy interpretation; in those of Asclepius and Hygieia perhaps there is a reference to medicine, and, more particularly, that of a magical sort if I am correct in my interpretation of certain of the inscriptions on the bowl. On the other hand, no especial meaning may have resided in the mind of the maker, for there are indications, as we have seen, that the reliefs, in some instances at least, are pastiches of other works of art.

Stylistically the bowl, on the whole, presents a barbaric

appearance. So crude indeed is it that to assume it to be genuine one must come down toward Coptic times to find parallels. But if we are willing to do that, then we shall find works that resemble it. At that time, of course, the non-classic character of the carving in nowise militates against the authenticity of the work. At that time, moreover, the apparent lack of connection between the figures and the inscriptions might be explained on the ground of the bowl having been used for magical purposes.

The inscriptions are not the least interesting part of the bowl. Let us start with those between the two busts. So far as I can make out, this one, like the others, reads from left to right. It runs as follows:

ΣΒΥΓ | ΜΩ | Ξ. Ξ | ΑΩ | ΥΡ | Ξ. | ΣΑΒΥΝ | Α. ΑΩΚΞ | ⊕ Α

The first word, Sbigmos, is more or less unintelligible. It has, however, a magic sound, and this, with other features in the inscription, led Professor Prentice and myself to look for concealed meanings in the inscription. Indeed, one is ready to look for magical formulae in almost any blind combination of letters after reading such as the following, which were used in a post-Hadrianic magical papyrus from Egypt:¹

ἰωερβηθηθ· ἰωπακερβηθ, ἰωβολχοσηθ· οεντυφω· ασβαραβω· β.εαιση· μενερω· μαραμω· ταυηρ· χθενθωνε, etc., or αρνεβονατ βολλοχ· βαρβαριχ· ββααλα.²

Out of this word Sbigmos, however, it would seem possible to extract a meaning if we could transliterate the β into φ.

¹ Wessely, *Griechische Zauberpapyrus von Paris und London*, in the *Denkschriften der Wiener Akad. Phil.-Hist. Classe*, 1888. *Zweite Abth.* p. 39.

² *Neue J. B., Suppl. Band, XVI*, p. 762, *Papyrus Magica Musei Lugdonensis*.

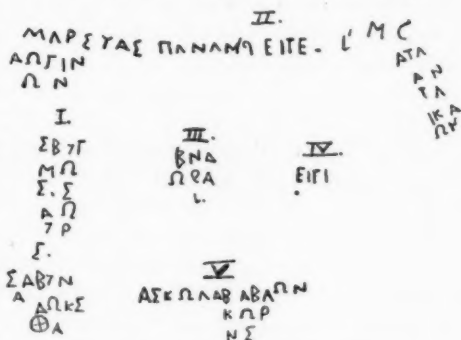


FIGURE 7. — ROMAN BOWL; INSCRIPTIONS.

Then we get the word *σφιγμός*, which is equivalent to *σφίγις*, which in turn means a constriction. On the other hand, by substituting *υ* for *ι* we get another word, *σφυγμός*, which means a throbbing or pulsation. The two therefore would have a medicinal connotation. But an Arab, and there are reasons for believing the inscriptions may have been written by an Arab, would have used an F for the *φ* sound. The next word, *Σαωιρς*, seems possible of explanation if we transliterate it as *Σε-ου-η-πος*. The following word is clearly Sabina. Then comes a combination of letters which if anything seemed magical to Professor Prentice and myself. The alpha and omega instantly recalled the regulation abbreviation for the Divinity, while the kappa sigma easily expanded into Kurios. The next letter, which looks like a cross-barred theta, of course has no right to be here if it is that letter. But this form occurs in Christian inscriptions apparently as a punctuation mark,¹ as well as the symbol for God. Alpha might stand either for Adam, who appears in the magical papyri in the cosmogonic sense to concentrate the natural forces evoked,² or for Abraham,³ whose name also is used in invocations. So out of *ΑΩΚΞΘΑ* we could get the formula Alpha omega, Kurios, Theos, Adam or Abraham. To us that might not mean much; but for a late Greek or Roman who believed in the potency of mystic names this formula would be a very powerful one. This inscription gives some idea of how blind the meaning of the writing on the bowl is and at the same time how tantalizingly it seems to hold out a clue for the interpretation of its significance.

The next inscription (as we pass to the right) is the one found over the wolf. Here we have the following combination of letters:

ΜΑΡΞΥΑΣ. | ΑΩΓΙΝ|ΥΩΝ | ΠΑΝΑΜϞ · ΕΙΤΕ-Λ'.Μ.Ϟ.
ΑΤΑ | ΑΝ | Τ.Α | ΙΚΑ | ΩΝ |

The first word, Marsyas, is easily read, but the connection of this name with the nude figure defies explanation. The word underneath, Aoginion, apparently a genitive plural, likewise has

¹ *Dict. Archéologique Chrétienne*, III, p. 1841.

² Dar. and Saglio, *Magica*, p. 1514.

³ *Neue J. B.*, l.c. p. 818 and *Abh. d. K. Akad. d. W.* Berlin, 1865, p. 219.

no meaning so far as I can make out. It is worth noticing that two forms of iota are employed in the two words.

The next series of letters, namely, Panam and the letter which looks like a rho written retrograde, yields a meaning, such as it is, for Panam could easily be taken for an abbreviation for the Macedonian month-name, Panamos. Moreover, this interpretation would seem to be reinforced by the last letter, if it is correct to assume it to be the numeral six.¹ This numeral in Alexandrine times sometimes takes a shape somewhat resembling our number seven with the left end of the top curled over to the right, and later on—which is of interest here—assumes a shape like a rho written retrograde. This latter form, to be sure, is also the Herodianic numeral for ninety (Roberts and Gardner, *Greek Epigraphy*, p. 475). But if the translation of the preceding letters as Panamos is right, it apparently cannot have that value here.

With the day of the month determined, it is natural to look for the year to follow. What we find as a fact are the letters EITE, which, while they make sense if translated as the conjunction, do not help much in view of what immediately follows. Nor are we better off by supposing that the person who wrote the inscription confused his vowel sounds, as we shall see that he did elsewhere, and so intended these letters to spell the dative of *ἔτος*, the word for year. We are no better off, I say, for the next symbol, which looks like the Roman L with an accent, seems to be the one employed to signify year. Such a form appears on the sign for year on coins and in inscriptions and papyri down into Ptolemaic times.² It is possible that in the word *eite* and the following sign we have an instance of a repetition of the same idea. However that may be, the next two letters, namely, M and what looks like a lunate sigma, can be read as a numeral, 240. Thus, perhaps without too much exercise of the imagination, we get "The sixth of Panamos in the year 240." But what relation this date bears to the bowl I do not venture to say. In fact, it seems only the more confusing when it is seen that seemingly with this inscription go the words Atalanta and Lykaon. The form, to be sure, in which they appear is Atlant. and Likaon (the *o* being the

¹ Blass in von Mueller's *Handbuch*, I, p. 282.

² Pauly-Wiss. I¹, p. 613.

omega); but abbreviation and substitution of vowels are not uncommon on this bowl, so that the translation is warranted. It is, in fact, the association of two such names as these — for Lykaon was Atalanta's grandfather — that makes one think that the writer could correlate his ideas when he wished, and that where the meaning is obscured it is because we have not the key to unlock the door. However, if these two words do bear a relation one to the other, so far as can be made out they do not appropriately belong on a date any more than the first two words, Marsyas and Aoginion. The inscription, then, as I have tried to make it out, is *Marsyas Aoginion, Panamos 6th, in the year 240; Atalanta Lykaon*, — not a very hopeful combination of letters, one must admit. The next word, spelled Bndora, is obviously meant for Pandora; and here we get a glimpse of the personality of the perpetrator of the inscriptions, for the method of transliterating here, as elsewhere on the bowl, suggests that we have to deal with an Arab. The name itself helps us in no-wise to understand the purpose of the bowl and hardly suits the half-draped female figure near by. Nor are we any nearer to a solution by taking into consideration the sign below, which, from the fact that it is preceded and followed by a mark of punctuation, is evidently meant to be taken by itself. The resemblance which it bears to the archaic Attic lambda is, of course, fortuitous; on the other hand, its similarity to the late sign which stands for "an," while not contributing to the meaning of the word above, at least is possible.

The last inscription but one is made up of the letters ΕΙΓΕ, which, in connection with the adjacent figure, can be easily understood to be a phonetic spelling for the first two syllables of the name Hygieia.

Finally we come to the last inscription on the bowl. This reads ΑΞΚΩΛΑΒ. ΑΒΛΩΝ. | ΚΩΡ | ΝΞ. Here again we encounter a group of words which, taken together, yield a meaning. Transliterating and supplying the omitted vowels, we have three names: Asculapius, Apollo, and Koronis. The combination, as in the case of the names Atalanta and Lykaon, shows that the person responsible for the inscriptions could, when he wished, be intelligible, and leads one to suspect that when he was unintelligible he was so intentionally.

In connection with the relation of the inscriptions to the figures, the question arises whether the same person made them as made the bowl. It is possible that the one responsible for the writing was not familiar with all the subjects represented, and had to draw upon his imagination or chose to add names which had an especial potency in a magical way. One is tempted, in the face of the seeming lack of meaning in the writing on the bowl, to say that the inscription and, in fact, the whole bowl is modern.

So curious indeed is the selection of figures, and so unusual is the character of the technique, that there would seem much reason for relegating the work to the category of forgeries. This impulse, furthermore, is helped on by the fact that the discoloration of the surface which the object possessed when acquired and which contributed so much to its appearance of age, easily disappeared when washed with alcohol, while water much less easily attacked it. The impression of forgery was driven home even more by the additional fact that the inscriptions, when washed, seemed as if recently cut.

The first impression then of the bowl was such as to cause one to be suspicious of it. It is, however, possible to account for these phenomena. In the first place, if the bowl had come fresh from the ground we should expect the ordinary discoloration of the surface, if due to dirt, to disappear when washed with water. If, however, the bowl had been above ground any length of time and had passed through many hands, especially if they were at all greasy, it is not probable that the discoloration would yield so easily to water. On the other hand, it is very probable that it would respond to alcohol. In this connection it is worth noticing that the interior (which was not exposed to handling) was cleansed with water.

The fact that the inscriptions and the other cuttings on the bowl present a new appearance is not a serious argument for forgery, as might be imagined. In the first place, Professor Butler has informed me that the incscription which he discovered last spring in the Lydian tomb at Sardis, when washed with water, had such a fresh look that he felt almost embarrassed to show it to any one as an ancient cutting in the stone. In the second place, I am told by a competent geologist that there is

no reason why a cutting in a marble as good as that of this bowl should not remain fresh indefinitely if properly protected; in fact, that age alone need not be considered as a factor.

More serious difficulties seem presented by the forms of some of the letters in the inscriptions, and by the apparent lack of meaning in the groups of letters and words in these inscriptions. For instance, one does not usually expect to see the four-barred sigma and the uncial omega in inscriptions of the apparent date of this bowl, which, if certain evidence offered by it is correct, belongs in the second or third century A.D. It is well known, however, that the time of Hadrian is one of revival in epigraphy, so that, at that time, it is not impossible to find early forms in the inscriptions. These forms of sigma and omega in fact persist for a much longer time, for they are found, *e.g.*, in an Egyptian inscription¹ dating in the year 232 A.D.

The grounds, therefore, which would seem to mark this bowl as a forgery appear to be insufficient to allow me to condemn it. To be sure, the meaning of the inscriptions on it and the import of the figures are unexplained; but the presence of Asclepius and Hygieia hint at an association with medicine. Possibly the bust of Sabina might also suggest that, for it is thought that the empress in the guise of Hygieia may be represented on a coin in the British Museum.² Furthermore, as we have seen, there seems to be a suggestion of magic in the formulae written on the bowl, and inasmuch as this is intimately connected with the practice of medicine, we have, so it would appear, some reason for thinking that the bowl was used for medicinal purposes, perhaps for grinding herbs and what not. At all events, it is interesting to note that the interior shows much more evidence of scoriation in the lower part than near the edge, where one would not be likely to rub with a pestle.

OLIVER S. TONKS.

VASSAR COLLEGE.

NOTE. — The following communication from Mr. L. Vincent, of the French School in Jerusalem, has been sent me by Professor Bates: "Si la pièce acquise par M. Tonks était encore à Damas

¹ *C.I.G.* 4705.

² *J.H.S.* 1884, p. 93.

en mars-avril 1910 je suis même enclin à croire que c'est le même vase qui a été examiné alors par un de mes confrères, le P. Janssen. Seulement, à cette date le vase en question était indiqué comme provenant de la région méridionale du Ḥauran et le P. Janssen a même quelque soupçon qu'elle proviendrait en réalité d'Arabie, — ce qui ne serait pas pour en diminuer l'intérêt."

BROOKLYN MUSEUM MEASUREMENTS OF 1910 IN
THE SPIRAL STAIRWAY OF THE PISA CAM-
PANILE¹

RECENT and widely published anticipations of the possible downfall of the Pisa Campanile have had the result of reviving, or keeping alive, the general interest in the long-debated question whether its inclination is intentional or accidental.

Since the days of Vasari, a widely diffused, but by no means universally accepted, impression has prevailed that the tower settled "before it had attained half its height," and that it was then continued with a bend at the fifth story, intended to rectify partially the accidental inclination.

Vasari does not mention the reasons for his belief, and there is no historic record to support it. It may be concluded that the existence of the bend is the cause of his belief that the tower had settled. It is certain, at all events, that the existence of this bend, above the fourth story, has led many modern students to reach similar conclusions.

Now the fact must have been overlooked by Vasari, and has also been overlooked by the modern scholars who have held the same views and who have advanced the same argument, that the tower bends toward the perpendicular at *every story* above the first. Thus such modern scholars are not aware that the same logic and the same kind of reasoning which have inspired them to hold that the tower settled before it was finished, and after the fourth story was completed, must also compel them to hold that the tower had begun to settle *before the second story was begun*.

The earliest modern surveyors of the tower, Cresy and Taylor, did not measure and did not observe the bends toward the

¹ Paper read before the Archaeological Institute of America at the meeting at Providence, December, 1910.



FIGURE 1.—VIEW OF THE LEANING TOWER OF PISA, SHOWING THE WELL IN WHICH IT STANDS.

(Brooklyn Museum Photograph, taken from the exterior choir gallery of the cathedral.)

perpendicular below the fifth story, and they also failed to record or observe the series of bends toward the perpendicular *above* the fifth story. So far as surveys are concerned, Rohault De Fleury was the first observer in this direction, although the facts are mentioned by Ranieri Grassi as early as 1837. De Fleury's section, published in 1859, demonstrates the existence of a bend at every story above the first (Fig. 2).

Rohault De Fleury applied to these bends the same logic and the same mode of reasoning which had apparently been applied by Vasari and by Cresy and Taylor to the single bend (at the fifth story) which they had observed. Just as Vasari held that the tower settled *when the fifth story was reached*, Rohault De Fleury held that a settlement began *before the second story was reached*, and all persons who hold to-day that the leaning tower is an accident are obliged to agree with Rohault De Fleury's theory of the accident.

It is certain that many who hold to the theory of accidental settlement are not familiar with Rohault De Fleury's results, but that simply implies that they do not understand their own case and do not know how that case has to be presented.

It is sufficient to say that De Fleury's theory has been formally accepted by Mothes, who is the compendious German authority on the statistics of mediaeval Italian architecture, and by Gsell-Fels, whose Italian guide-books are the best of their kind. It appears also in Venturi's recent history of Italian art. It is, moreover, the only possible theory of settlement.

What are the facts, in detail, on which that theory is based? What is that theory when stated in detail?

The facts are these. The bends toward the perpendicular are obtained by giving unequal and greater height to the galleries on the overhanging side, or south side, as compared with the north side (see Fig. 2). The extra increments of height on the south side are:

- 3 centimetres in the second story,
- 4 centimetres in the third story,
- 7 centimetres in the fourth story,
- 15 centimetres in the fifth story,
- 8 centimetres in the sixth story,
- 11 centimetres in the seventh story, and
- 38 centimetres in the platform of the eighth story.

The total extra height on the south side of the tower, as contrasted with the north side, has, therefore, the very considerable amount of *86 centimetres or 34 inches.*

Now what is the theory based on these facts? In stating this theory it must be remembered that it is to-day the *only possible theory of settlement* when the facts established by De Fleury's survey are known.

This theory is that a continuous settlement was in progress throughout the entire hundred and seventy odd years during which the tower was in process of construction, 1174-1350, and that the successive amounts of this settlement are determined by the increments in the heights of the galleries on the overhanging side. For

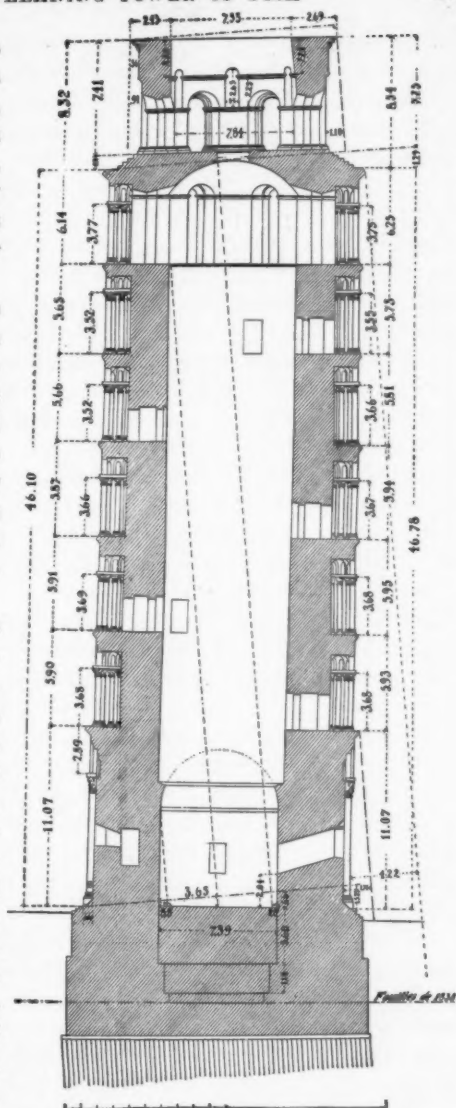


FIGURE 2.—DE FLEURY'S SECTION OF THE LEANING TOWER.

instance, the second story (first gallery) is 3 cm. higher on the south side, therefore an unequal settlement of 3 cm. had occurred before the second story was begun; and so on, for each successive disparity of measurements for the heights of the same gallery on opposite sides of the tower.

Thus when the seventh story was finished the tower had settled, according to this theory, to such an extent that its total inequality of settlement amounted to 50 cm., and all of this had been made good, according to this theory, by the corrections whose amounts up to that height have been mentioned. We might, therefore, suppose, as the platform of the eighth story shows an inequality of 38 cm., when its two sides are compared, that this was the additional amount of settlement just before that platform was reached. The theory of De Fleury presumes, however, that the inequality of settlement at this point was only 20 cm. and that 18 cm. of the 38 represented a downward slope of the platform in the direction opposed to the inequality of settlement, which was given by the builder in order to anticipate and forestall the downward movement on the south side. The reason for this presumption is that the eighth story or bell chamber is 16 cm. higher on the north side (7.41 m. — 7.25 m.). Therefore the theory stands as follows for the eighth story platform: the builder found a settlement, since the next story below was built, of 20 cm., but, besides correcting this, he added 18 cm. tilt *in the opposite direction*, so as to anticipate a further settlement, but it then turned out (the theory holds) that the builder allowed too much, and the actual settlement at this time was only 2 cm. up to the time when the tower was completed. Thus the platform of the tower sloped 16 cm. (or 18 cm. minus 2 cm.) to the north, and therefore the wall was made higher on the north side to the same extent, and, when the tower was finished, the top was level. The theory, therefore, holds that the tower was perpendicular at this date, apart from a bend convex to the exterior on the south side, which amounted to 30 cm. or 1 ft., and which was due to the successive rectifications which had kept the tower perpendicular.

Thus the total amount of unequal settlement when the tower was finished was 70 cm., *i.e.* 86 cm. minus the 16 cm. overplus

tilt downward, toward the north, which the builder had constructed in anticipation of a settlement which did not occur at that time. But the total inclination of the lower platform of the tower was 1.50 m. in 1859. Thus the given theory holds that 80 cm. additional inequality of settlement occurred after the tower was completed.¹

Now, if the theory of De Fleury and Mothes appears labored or complex, it must be remembered that no other settlement theory is possible when the figures are known. It would be a comparatively simple statement to say that the tower settled gradually, and unequally, 86 cm. before completion and the difference between 86 cm. and 1.50 m. after completion, and that the proof that it settled gradually lies in the figures for the heights of the galleries. This simple statement is, however, not sufficient. The settlement theory has to deal with the fact that the north side of the bell chamber is higher than the south side, and it can explain this fact only by supposing that the platform of the bell chamber was tipped too far in the opposed direction by a builder who was anticipating that something would happen which actually did happen at a later date, but which did not happen until after the tower was finished.

It is doubtful, however, if more than half a dozen scholars in Europe, out of the number of those who are familiar with De Fleury and Mothes, could give to-day any definite account of their own ideas about the accidental settlement of the Leaning Tower without first reading up on the figures in Mothes' or De Fleury's publications, and it is perfectly certain that the majority of experts who hold to the theory of accidental settlement have no idea whatever of the manner in which that settlement must have occurred, if it occurred at all.

There are certain improbabilities in the theory of settlement when the problem is stated explicitly, in the terms of De Fleury, Mothes, and Venturi, as it must be stated if stated properly.

That a leaning tower may be the result of accident is obvious, and this accident has evidently and obviously happened in many cases; but that the builders of such a tower should have striven continuously to correct a continuous and uninterrupted

¹ It is also generally agreed that this settlement must have occurred soon after the tower was finished; certainly a good while before the time of Vasari.

progressive movement which began before the second story was begun, is manifestly open to doubt. The ultimate downfall of the tower must have seemed as probable then, under the circumstances assumed to exist, as it would now seem to us, if a continuously progressive movement were now known to exist. The builders of the tower were obviously themselves good masons and good artists, and it seems most unlikely that they would have taken the risk. If the builders and masons had been so foolhardy as to take these risks, it is unlikely that the communal and ecclesiastical authorities and the contributors to the funds for the building would have allowed them to do so. Many of the Italian communes of this period had laws compelling the owners of towers which had weak foundations and which appeared insecure, to take them down in order to avoid accidents.¹ If such laws existed, is it likely that any Italian commune would have deliberately continued to build a tower which was threatened by an obviously imminent disaster?

In order to appreciate the bearing of the measurements of the Pisa Campanile which were taken on behalf of the Brooklyn Museum in May, 1910, it is necessary to bear in mind the conditions of the problem relating to the tower, as they have been surveyed by De Fleury, and this is why these conditions have been so carefully rehearsed. If a settlement occurred at all, it must have begun before the second story was under way, and when the second story was under way, the unequal settlement cannot have been more than 3 cm., but there must also have been a direct downward settlement of very serious amount. According to the depth of the well in which the tower now stands (Fig. 1), the total settlement must ultimately have been at least 4 ft. on the upper side, and 9 ft. on the lower side. De Fleury holds, however, that the total settlement was 8 ft. on the upper side² and 13 ft. on the lower side, as he believes that the level of the platform of the adjacent cathedral choir was the original surface level of the Campanile.

Remembering, therefore, that the theory of accidental settlement must include the conditions of *direct* settlement as well as

¹ Ricci, *Storia dell'Architettura in Italia*, vol. I, pp. 577-584.

² 2.40 m. See the text to his *Monuments de Pise*, p. 65.

those of *inequality* of settlement, we now proceed to consider the measures of 1910 in the spiral stairway.

The ground plan of the tower shows it to be a tube with an interior void. The ascent is made by a spiral stairway which is built in the tubular wall. The diagram (Fig. 3) is planned in outline like the ground plan. The measures on

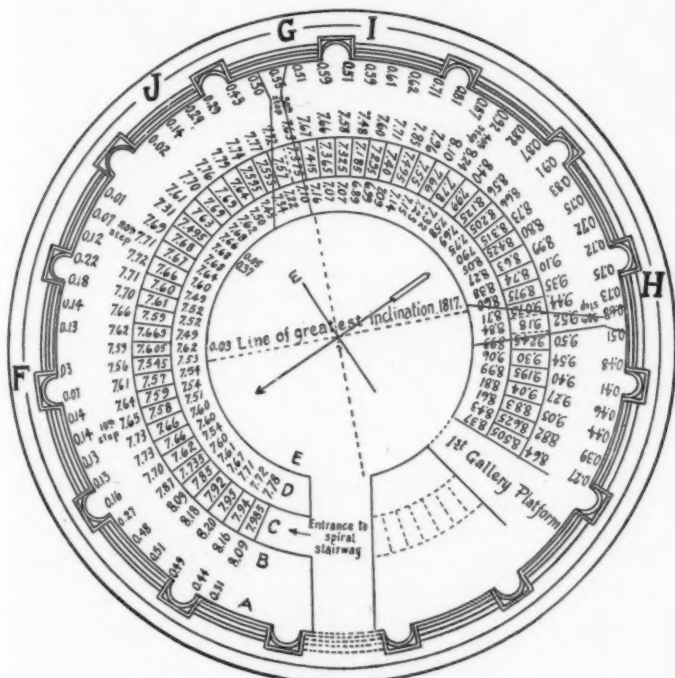


FIGURE 3.—LEANING TOWER; FIRST DIAGRAM.

either side of each step represent the height of the ceiling of the stairway as measured at the centre of the side of each step. The measure *on* the step represents the average or mean height of the ceiling at the given step, and is obtained by dividing by two the sum of the outer and inner measures. It therefore gives the height at the middle of each step. The extreme outer circle of measures represents the excess of height on the

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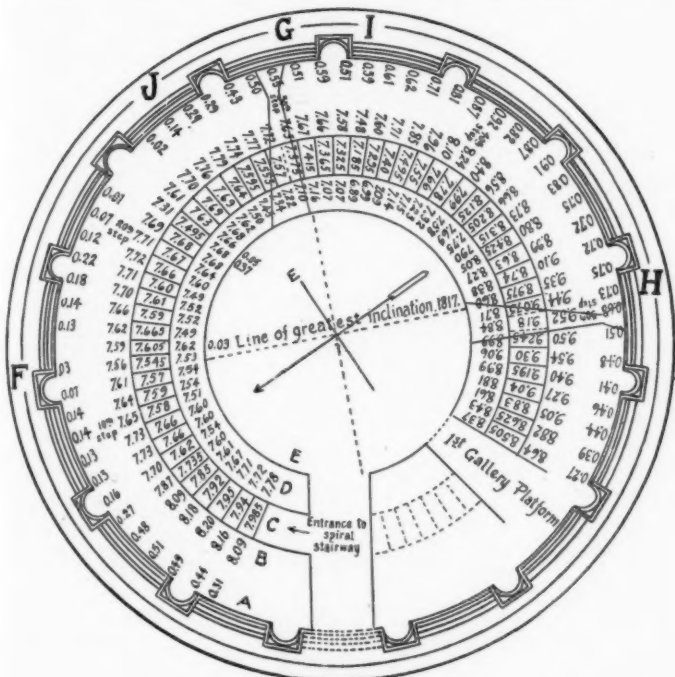


FIGURE 3.—LEANING TOWER; FIRST DIAGRAM.

either side of each step represent the height of the ceiling of the stairway as measured at the centre of the side of each step. The measure *on* the step represents the average or mean height of the ceiling at the given step, and is obtained by dividing by two the sum of the outer and inner measures. It therefore gives the height at the middle of each step. The extreme outer circle of measures represents the excess of height on the

outer side of each step wherever such excess is found. The first step, for instance, is 8.09 ft. high on the outer side, and 7.78 ft. high on the inner side. Therefore 0.31 ft. is the extra height on the outer side, and this measure represents that amount of tilt downward and inward of the ceiling. In cases where the inner height is the greater, for instance at the four-

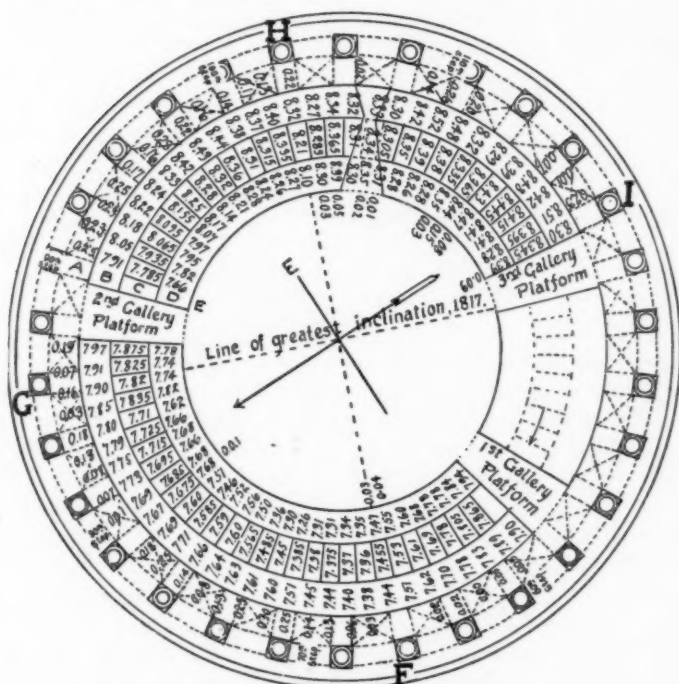


FIGURE 4.—LEANING TOWER; SECOND DIAGRAM.

teenth step, where the inner height is 7.62 ft. and the outer height is 7.59 ft., the difference is 0.03 ft. greater height on the inner side. This measure is placed on the diagram in the inner circle, just inside the bounding line of the wall which surrounds the well. At the given point the ceiling tilts downward in the outward direction to the amount of 0.03 ft.¹ It

¹ As compared with the step.

may be noted that there are only three measures on this diagram which show this kind of tilt.

This diagram also shows the line of greatest inclination from N. E. to S. W. The thirteenth step is the point of greatest inclination on the side opposed to the overhang. The forty-ninth step is the point of greatest inclination on the side of the

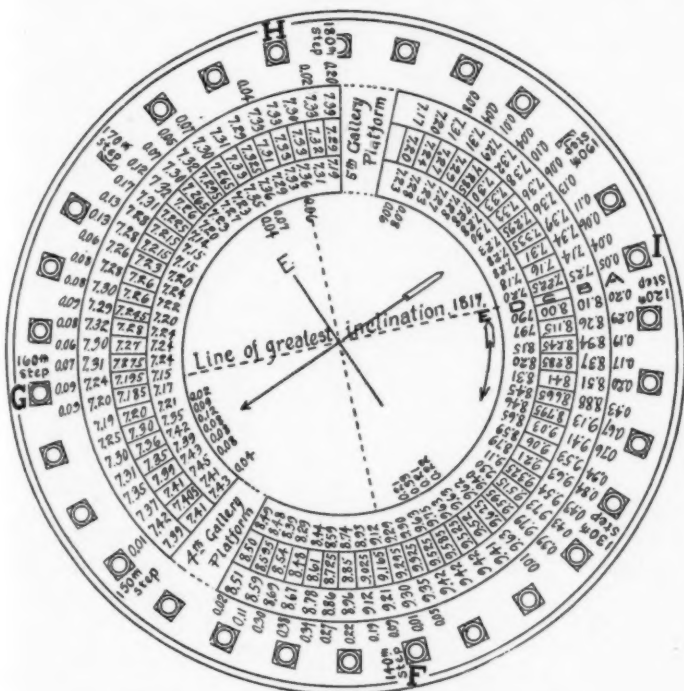


FIGURE 5.—LEANING TOWER; THIRD DIAGRAM.

overhang. The measures on this diagram end at the first gallery platform.

The next diagram (Fig. 4) is designed on the same principles, and continues from the first gallery platform around to the second, and then to the third gallery platform.

The third diagram (Fig. 5) begins at the third gallery plat-

form. It rises to the fourth gallery platform, then to the fifth gallery platform, and beyond it.

The fourth diagram (Fig. 6) completes the series of measures for the twenty-two remaining steps of the entire two hundred and seventeen, up to the platform of the sixth gallery or seventh story. Beyond this platform the bell chamber is reached by a

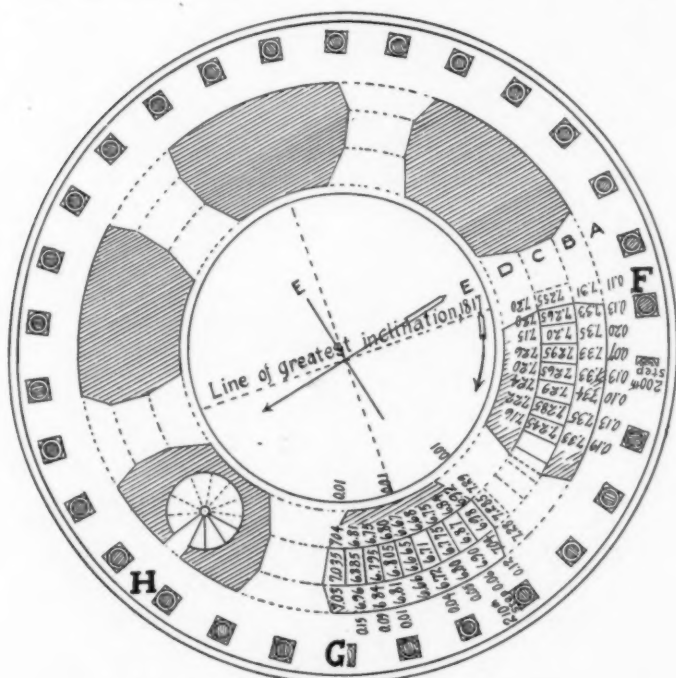


FIGURE 6. — LEANING TOWER; FOURTH DIAGRAM.

very small spiral stairway which is built inside one of the piers which support the platform of the bell chamber.

In considering these measures, we have first to ascertain what allowance should be made both for errors of the surveyor and for errors of the builders. These measures are given in feet and foot hundredths, and it is evident that no builder could intentionally build variations of only a few hundredths

of a foot. The question therefore rises: Beyond what limits of variation can we assume intention? Moreover, allowance must be made for errors of the surveyor. The measures were taken with a sliding surveyor's rod and read from a vernier. The position of the rod was determined by the eye in placing it at the centre of each step, and, whereas the surface of the step is flat, the rise of the ceiling is continuous. For instance, at the fifty-second step the amount of rise is 0.46 ft. in a width of 1.60 ft.; or, say roughly, 6 in. in 18 in. If an error of an inch were made in placing the rod, there would be an error of $\frac{1}{3}$ of an inch as regards the height of the ceiling.

The allowance for these errors may be easily calculated on the third diagram (Fig. 5). The mean height of the ceiling at *G* is 7.195 ft. and at *I* it is 7.225 ft. There are thirty-seven steps between these points, and yet the difference of height is only 0.175 or $\frac{3}{16}$ inch. It is evident that the ceiling was intended to be of equal height between these points, and that the builders were in error in a distance of thirty-seven steps by only $\frac{3}{16}$ inch. In the given thirty-eight steps the greatest variation in height is $2\frac{3}{8}$ in.,¹ and the greatest variation in tilt of the ceiling is $3\frac{3}{4}$ in.² The variation in dip between the first and last steps of the thirty-seven is only 0.04 ft., or half an inch.

Therefore, if the height of the ceiling rises, in the first story (Fig. 3), 1 ft. 6 in. between the thirteenth step and the forty-ninth step, we know that the rise was intended. And if the inward dip of the stairway ceiling, in the first story, increases $8\frac{1}{4}$ in. between these points, we know that this increase was intended, and that the dip itself was intended.³

The purpose to be served by an inward dip of the ceiling in the case of a leaning tower is very apparent. If the stairway ceiling tips downward and inward, at the forty-ninth step, over

¹ 7.335 (one hundred and ninety-second step); 7.16 (one hundred and ninety-fourth step).

² 0.20 ft. dip inward (one hundred and eightieth step); 0.12 ft. dip outward (one hundred and fifty-fifth step).

³ The unbroken series of increments in height begins at the thirty-fourth step (at *I*). The measures for mean increase at each step, from this point, are as follows: 0.11, 0.105, 0.095, 0.055, 0.11, 0.12, 0.21, 0.135, 0.08, 0.11, 0.11, 0.205, 0.11, 0.235, 0.10. The uninterrupted increase in the dip begins at the twenty-fifth step (*J*). See Fig. 3.

8 in. in a stairway width of only about $3\frac{1}{2}$ ft., it is evident that the weight of the masonry above the ceiling is thrown toward the inner wall, and that this is an advantage to the solidity and strength of a leaning building. That this inward dip of the ceiling is a constructive device for obtaining additional solidity and forestalling any outward movement of those parts of the wall which are adjacent to the pressure on the stairway ceiling, is self-evident. The advantage of this device for all parts of the tower, excepting those which are quite near to the point which is directly opposed to the overhang, is also apparent.

As regards the variation in height of the stairway ceiling, it appears, if the height of the ceiling rises toward the overhanging side, that the weight of the masonry is diminished as much as the void space is increased, which amounts to the same thing as adding to the weight of the masonry on the side opposed to the overhang. A simple calculation will show, if the ceiling rises to the amount of 1 ft. 10 in., and this is the case between the thirty-fourth step (*I*) and the forty-ninth step (*H*), that there is a diminution at the forty-ninth step *alone*, of about 11 cubic feet of masonry, and that, for this one step, 11 cubic feet of masonry are added to the weight of the tower on the side opposed to the overhang. By similar calculations for the individual steps, it is easy to understand that a very considerable change in the centre of gravity of the tower has been effected by this arrangement.

The question now arises, what could be the reason for weighting the tower more heavily on one side than on the other, and the choice of reasons must evidently lie between two. One reason might be suggested, that the device was intended to combat an unequal settlement; or, at least, we will assume that this reason might be suggested. The only other possible reason would be the desire to give additional security to an intentionally leaning construction and to shift the centre of gravity to the north of what might be termed the mathematical centre.

If the first reason is abandoned, the second reason must be accepted. But the measures show that the system of decreasing the height of the stairway began at the first step. There is a gradual diminution of $5\frac{1}{2}$ in. in mean height between the first step and the thirteenth step. The inauguration of the

system at the beginning of the construction is also most convincingly proved by examining the measures for the inward dip of the ceiling. Between the third step and the thirteenth step, which is the central point opposed to the greatest overhang, the inward dip decreases from 6 in. to nothing. The results of this observation appear conclusive as to intentional construction.

For the alternative is not only that a settlement had begun when the first step was laid, *but also that the builders knew before they had reached the thirteenth step which way the tower was ultimately going to lean.*

We must remember that the inequality of settlement was never as great as the direct settlement. The direct settlement *on the upper side* was ultimately 8 ft., according to De Fleury. But the inequality of settlement was only 3 cm. or about an inch, *when the first story was finished.* We must, therefore, suppose, on the theory of accident, that the builders knew which way the tower was ultimately going to lean when they began the building, although the inequality of settlement was only about an inch when they had finished the first story.

In cases of settlement there must naturally be some inequality, and this inequality would naturally affect different points at different times in the progress of the settlement. No builder could possibly have known which way the first story was going to tip before the thirteenth step was reached.

This argument appears conclusive, and it only remains to expand and supplement it by an account of the measures above the point of greatest inclination in the first story, at the forty-ninth step.

The decrease in height begins at the fifth step beyond the point *H*, and this decrease is shown, partly by the first diagram (Fig. 3) and partly by the second diagram (Fig. 4), to be continuous around to the quarter turn on the west side on the second diagram, near the point *F*. The height of the stairway then remains without systematic change as far as the point *G* at the eighty-sixth step, the point opposite the middle of the overhang. Beyond this point there is a gradual rise of 6 inches around to the point *I*, at the third gallery platform, which is the central

point of the overhang, thus repeating the same expedient, but in less amount, which was observed in the first story.

In order to study the dip of the ceiling above the forty-ninth step (at *H*, Fig. 3), we now return to that point. The decrease in the dip begins near the forty-ninth step, and is continuous around to the west quarter turn on the second diagram (at *F*, Fig. 4). But beyond this point the system of dip variation is abandoned, and the figures generally show a very slight inward dip, with slight changes which are not systematic.¹

¹ The accounts of Mothes (*Die Baukunst des Mittelalters in Italien*, II, p. 737), who is the best authority in such matters, make it possible that Bonanno, the first architect of the tower, was absent at Monreale, near Palermo, during the construction of the next story (third gallery). At all events, it is certain that the construction came to a halt in 1186 until 1233, after the fourth story (third gallery) was finished. This period of inactivity thus lasted about fifty years.

Beyond the third gallery platform (Fig. 5, *E, D, C, B, A*) the mean height of the stairway rises very abruptly from 8 feet at the one hundred and twentieth step, next the platform *E, D, C, B, A*, to 9.625 ft. at the one hundred and thirty-third step. The mean height then decreases to 8.50 ft. at the one hundred and forty-eighth step, next the fourth gallery platform.

We may assume that the increase in the height of the stairway on the west side was originally intended to be continuous throughout the remainder of the construction, and that it was intended to diminish the weight of the wall in the upper stories. Several other effective expedients were undoubtedly employed to that end, especially the successive reductions in the thickness of the tubular wall. These reductions in the thickness of the wall probably made the continuance of the high stairway inadvisable, as the main upper weight of the tower had to be supported by these narrow walls. The thickness is only about 2 ft. 3 in. in this story.

Whether the expedient was abandoned by its original devisers or by builders who followed them at a later date, cannot, of course, be determined. The temporary revival of the dip system in connection with the rise of the ceiling in the quarter turn on the overhanging side, from the one hundred and twentieth to the one hundred and thirty-second step (between *I* and *F*, Fig. 5), speaks for itself in the measures. This was certainly suggested by considerations relating to the danger of an outward movement of the high wall of the stairway, and in view of its diminished thickness.

It is also extremely significant that, when the fourth gallery platform was reached, the stairway was lowered an entire foot, as between the steps on either side of the platform (8.50 ft., one hundred and forty-eighth step, lower side; 7.41 ft., one hundred and fiftieth step, upper side). Such an abrupt change of height is otherwise wholly foreign to the system of the stairway. A new architect, Benenato, took charge of the construction above the fourth gallery platform in 1233, and this lowering the height of the stairway by 1 ft. (1.09) was therefore due to him. The fifth gallery (sixth story) was not begun until 1260. This and

Thus, above the third gallery platform the systematic variations in the height of the stairway and in the dip of its ceiling are abandoned. From this fact an additional argument may be derived. The third gallery platform is the top of the third story, and reference to De Fleury's section shows not only that the exterior bends continue above this point, but also that they increase in their amount. If it be held that both devices, viz. the system of changes in the interior height and dip of the stairway and the system of exterior bends, were intended to counteract a continuous settlement, then it would be impossible to explain why one system was abandoned above the third gallery platform, and why the other was continued. But if it were held that both systems were intended to secure the stability of an intentionally leaning construction, then the explanation would be simple. This explanation naturally considers the point that the variations in the height and dip of the stairway must have given the builders considerable trouble and must have caused considerable extra expense.

The explanation would be that the stability of the experiment was established when the third story was finished, and that anxiety about it had disappeared. From this point of view, the explanation of the exterior bends would be that the builders had wished to accent the impression and appearance of inclination at the base of the tower, and had also wished to slightly and imperceptibly diminish the inclination as the height of the tower increased, as a precaution affecting the centre of gravity. From the same point of view, the downward rake to the south given to the top of the upper story would be also easily explained. This increase in the height of the north side of the bell chamber was a device which did not at all affect the stability of the tower, but it tended to conceal the rectification toward the perpendicular. In other

the sixth gallery (seventh story) were built by Wilhelm von Innsbruck. The bell chamber, by Tomasso da Pisa, was not built until about 1350.

Beyond the point *G* in Figure 5 the measures have been already analyzed, and it was from these measures, for the stairways of the fifth and sixth galleries, that we were able to determine the extreme limit of builders' and surveyor's errors for the lower stories of the tower. There is no further significant change in the height of the stairway, and this applies also to the twenty-two steps which are shown in Figure 6.

words, it exaggerated the appearance of inclination, but did not actually increase it.

It must be admitted that the explanation of Mothes for this feature of the construction is rather fanciful.

Ranieri Grassi, who was the most vigorous exponent in modern times of the theory of the intentional inclination of the Leaning Tower of Pisa, and who was the first observer of the facts relating to the changes of height in the spiral stairway and in the dip of the ceiling, adduced another argument which deserves serious attention. Grassi quotes Michele da Vico, an author of the fourteenth century, as expressly mentioning the strength of the foundations and the fact that they were allowed to rest for a year before the construction was undertaken.¹ The tower was finished in the middle of the fourteenth century; therefore, says Grassi, da Vico could not have praised the foundations if the tower had settled, and, if it had settled, he assuredly would not have described the foundations without mentioning a settlement.

The arguments recently advanced by the Italian Government Commission as demonstrating accident do not appear to have great weight. The discovery that the foundations (of masonry) are only 3 m. deep is held to demonstrate their weakness, but the history of the tower, which is known not to have changed its inclination for many centuries before the movement which was probably caused by the earthquake of 1846, demonstrates that this depth was sufficient.

Moreover, the authority, Rohault De Fleury, who committed the error of representing the foundations as being 7 m. deep, was himself a supporter of the accident theory.

It has also been found by the Pisa Commission that the foundations are of equal depth on all sides, i.e. the base of the foundations slopes like the base of the tower. This is held by the Commission to be a proof of settlement. But if the base of the foundations had been level, they would have been of unequal depth, and therefore of unequal strength, and the weaker side would also have been the side of the overhang, where strength is most to be desired.

¹ *Descrizione di Pisa et suoi Contorni*, vol. II, p. 96, 1837.

The truth seems to be that the only logical argument for an accidental settlement is that of De Fleury, and that the logic of this argument is its own destruction when it is applied to the recent measurements in the spiral stairway.

WILLIAM H. GOODYEAR.

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NOTES ON CENTRAL ITALIAN PAINTERS

[PLATES VIII-IX]

1. COLA DA CAMERINO

ADOLFO VENTURI published in *L'Arte*, 1910, pp. 377 f., interesting facts about the painter Arcangelo di Cola da Camerino. We are able to reconstruct his artistic character on the basis furnished by his two signed pictures in the possession of Mrs. Longland, and the one in the Vatican Gallery. The artistic features of the school of the Marches, with the strongly marked influence of Gentile da Fabriano, are prominent in these works. There exists in Assisi, over the lateral portal of San Lorenzo, a partly ruined fresco (PLATE VIII) of the Madonna sitting on a richly ornamented cosmatesque throne with the Christ child on her lap and Sts. Lawrence and Francis at her sides. At the feet of the latter, the donors, members of a pious fraternity, are represented on their knees. The figure of St. Lawrence has been completely repainted, but the rest is entirely free from restorations and is remarkable for the brilliancy of the coloring. Over the head of the Madonna is the inscription COLA. PICTOR. The style of this fresco is very closely related to that of the pictures by Arcangelo di Cola da Camerino, although its character is more archaic. Is it not very probable that we have here a work of the teacher of Arcangelo, *i.e.* of Cola da Camerino, before us? Italian writers on art used to attribute this work to Cola dell' Amatrice, who flourished about a hundred years after the time of our fresco. Among Italian artists it was quite a habit to be named after their masters. Stylistically, the works of Arcangelo di Cola da Camerino are nothing but a further development of the art which speaks from the Assisi fresco.



COLA DA CAMERINO; FRESCO, S. LORENZO, ASSISI (Alinari photograph)

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ANTONIO DA FABRIANO, ST. JEROME IN HIS STUDY. FABRIANO.
FORNARI COLLECTION

BOSTON UNIVERSITY
COLLEGE OF LIBERAL ARTS
LIBRARY.



In connection with this, I venture to reproduce two more hitherto ignored frescoes in Assisi. The first decorates a niche near San Damiano, outside of the city (Fig. 1). It has been badly damaged by the vicissitudes of time, although, fortunately, it escaped the hands of the restorer. It represents



FIGURE 1. — COLA DA CAMERINO (?), FRESCO NEAR S. DAMIANO, ASSISI.

again the Virgin, with the Christ child on her lap, sitting on a throne which is very similar to the one we have seen in the San Lorenzo fresco. Construction and decoration of the two pictures are alike. At her sides stand St. Francis and St. Clara; to the left kneels the donor, who is presented by St. Francis. The second fresco was some time ago in the possession of the restorer and art dealer, Domenico Brizi in Assisi, to whose

courtesy I owe the photograph here reproduced (Fig. 2). This painting has been freely restored, especially the head of the Madonna. The Christ child exhibits, however, so many analogies with the two preceding works, that it does not seem too risky to attribute the whole fresco to the same hand that



FIGURE 2. — COLA DA CAMERINO (?), MADONNA. ASSISI, SIGNOR BRIZI.

Painted the two others. It hardly seems necessary to mention that the figures of saints and angels are later additions.

All three of these frescoes show plainly the influence of the Sienese Taddeo Bartoli, who worked in Perugia in 1403. This, or somewhat later, will be the probable date of our

frescoes. But, besides this influence, the characteristics of the painters of the Marches are evident.

2. ANTONIO DA FABRIANO

Dr. Walter Bombe was, so far as I know, the first to make an attempt to do justice to this genuine and interesting artist (cf. his biography of Antonio in Thilme-Becker's *Künstlerlexicon*, vol. I). Crowe and Cavalcaselle judged him too severely, and, after them, all the critics have retained the old error, originated I believe by Amico Ricci in his *Memorie delle Belle Arti della Marca d' Ancona*, that Antonio d' Agostino di Ser Giovanni da Fabriano was a mediocre follower or apprentice of Gentile da Fabriano. This is quite absurd. Apart from the entirely different character of the works of Antonio, Gentile was dead in 1427, whereas the artistic activity of our painter begins in the fifties of the fifteenth century, and he was still alive in 1484. (These facts have been already pointed out by Dr. Bombe.) The peculiar force of Antonio's art will strike any attentive examiner of his works, which, however, are very difficult to discover. They are to be found, away from the tourist-beaten track, in the small villages of the Marches and in Fabriano. His types have an astonishing similarity to the creations of Germanic art. Hard but forcible drawing and deep, glowing coloring cause his pictures to remind one of Flanders. Cavalcaselle already remarked the originality of Antonio's technique. He thought the painter had mixed his tempera colors with some resinous oil. I believe, however, that Antonio painted at least three works in oil technique. In the Marches we look in vain for the home of his art. He must have been affected at a very early date by Venetian and, more especially, by purely Northern, influences. These latter make themselves felt in his entire conception. Look, for instance, at his "St. Jerome in his Study" in the collection of Signor Fornari at Fabriano, signed and dated 1451, and the question arises unconsciously, Where in the world did an Italian acquire, at such an early date, this predilection for detail, this sentiment for the intimacy of the interior, the almost brutal realism of the hands and the face, in which every wrinkle can be traced? There is only one explanation for all this: Antonio must have come across

some wandering German or Flemish painter, who made him acquainted with the practices of "oltr' Alpe."

I wish to add to Antonio's "œuvre" two works which hitherto have not been connected with his name. The first is a triptych in the Pinacoteca municipale of Gualdo Tadino, bearing there the number 6, which has been ascribed by Mr. Berenson in his *Central Italian Painters of the Renaissance* to Matteo da Gualdo. Mr. Berenson now agrees with my attribution



FIGURE 3.—ANTONIO DA FABRIANO, TRIPTYCH, MUNICIPAL GALLERY, GUALDO TADINO.

(Fig. 3). The central panel shows St. Elisabeth teaching the child Mary on her lap how to read. This is a subject familiar to German art, but never to be found at this period in Italy. The wings show the figures of St. Peter and St. Paul (they are wrongly arranged, for the right one belongs at the left of the centre piece, and the left one to the right, as is shown by the position of the apostles). The figures make an *uncouth* impression, but they are fresh and natural in movement. The



FIGURE 4. — ANTONIO DA FABRIANO (?), MADONNA. NEW YORK, MR. EHRLICH.

little Mary looks as if she had been copied from some German picture.

It is not quite so easy to recognize the authorship of Antonio in the second picture (Fig. 4). It belongs to Mr. Ehrich, the well-known art dealer of New York, and has been, to a great extent, restored. This is true especially of the hands of the Virgin, the Christ child, and the angel on the right. The angel on the left and the face of the Virgin are, on the contrary, well preserved, so that they exhibit the original aspect of the panel. They are in so many respects, especially in the technique, akin to the other works of Antonio da Fabriano, that the ascription of the picture to this master seems to me quite certain. In this work again, he exhibits his strong coloristic qualities, and the uncouthness of his figures is also present. The composition is taken from Antonio Vivarini.

Another work of Antonio, discussed by Crowe and Cavalcaselle, but so far as I know not published before, is his earliest signed picture (PLATE IX). It belongs to Signor Fornari in Fabriano and represents St. Jerome in his study, and is dated, on the edge of the table, 1451. This painting is probably the masterpiece of our painter, and, as I have said, it is of high quality both in drawing and in depth of coloring. The signature of Antonio is placed on a cartellino on the bottom fillet of the original frame. The figure of the saint is about half life size.

Antonio retained throughout his life this peculiar artistic character, so different from everything else in Central Italy. His "Death of the Virgin" in the Pinacoteca comunale of Fabriano, dated 1482, shows no progress, nor is it in any respect different from the rest of his works (see the reproduction in Umberto Gnoli's *La mostra d'arte antica Umbra*, Bergamo, 1908, p. 104). The heads of the apostles surrounding the dying Virgin remind us strongly of the types of Hans Baldung-Grien of Schüffelein. Perhaps some future researches will be fortunate enough to throw some light on the question, whence Antonio received his strong imprint of Germanic art. So far as documentary evidence goes, we know nothing of his wanderings. He is only mentioned as domiciled in Fabriano.¹

¹ The only other place where his activity is ascertained is Sassoferrato, a neighboring town.

The frescoes in S. Domenico assigned to Antonio by Crowe and Cavalcaselle are not by him (see *New History of Painting in Italy*, new edition by E. Hutton, vol. III, p. 150 f.).

3. AN UNPUBLISHED FRESCO OF OTTAVIANO NELLI

No visitor at Gubbio would fail to pay his respects to the wonderful Madonna del Belvedere of Nelli, and even the tourist



FIGURE 5.—OTTAVIANO NELLI; FRESCO, ST. CHRISTOPHER, GUBBIO.

is likely to look up the master's frescoes in Sant' Agostino, but who would expect to find an authentic work of his brush over the backstairs of a back courtyard of the ruined Palazzo Beni? And yet I believe that the St. Christopher there (Fig. 5) is as

characteristic a work of Ottaviano Nelli as anything else to be found in Gubbio. He was the best artist Gubbio ever produced, and the same features which make his other work so charming can be perceived in this fresco. The lower part of it has been badly damaged, but the upper part is well preserved. It has gay colors; the drapery is bold and full of contrasts, although somewhat heavy. The figure is almost life size.

MORTON H. BERNATH.

MEDUSA, APOLLO, AND THE GREAT MOTHER

I

IN venturing the following interpretation of the Gorgon Medusa I am conscious of running counter to so strong a current of established preconceptions, and of proposing a solution in principle so distasteful to orthodox votaries of the Olympian cult that in propitiation I can but put it in the sequence through which the conclusion forced itself upon me. This conclusion is that Medusa was not an evil demon or bogey, but primarily a nature goddess and earth-spirit of prehistoric times identical with or cognate to the Great Mother, to Rhea, Cybele, Demeter, and the "Mother" Artemis. As a procreative and fertilizing energy embracing the action of light, heat, and water on the earth, she became an embodiment of both the productive and destructive forces of the sun and the atmosphere, an emblem of the sun-disk.

After dominating in pre-Hellenic times, she was given in later times a subordinate part in the Olympian system, entering the service of Zeus and Athene, gods of atmosphere and light. Above all she became the embodiment, after being the mother, of Apollo-Helios without ceasing to be connected with the nature goddesses. Crete, Asia Minor, Sparta, Delphi, Athens, represent stages in the evolution of her plastic type with contributions from Egypt and Western Asia.

Now, the current interpretations resolve themselves into two main groups, — the Euhemeristic and the Physical. Professor Ridgeway¹ believes that the Gorgon was some hideous beast indigenous to the Libyan desert, and that the Gorgoneion on

¹ *J.H.S.* XX, p. xlv; cf. J. E. Harrison, *Proleg. St. Greek Religion*, p. 192.
American Journal of Archaeology, Second Series. *Journal of the*
Archaeological Institute of America, Vol. XV (1911), No. 3.

the aegis of Athene was the head of the beast whose skin was worn by the goddess. According to this school the Gorgon is merely a monstrous bogey used as a charm to frighten and to avert evil, and she is primarily a mask for whom a body, a slaying hero, and a myth were afterwards invented. The Physical interpretation, most ably represented by Roscher and Furtwängler,¹ regards the Gorgons as storm demons, atmospheric forces manifesting themselves in the thunder and lightning, which dazzle and terrify. Even when they protect, they do so by the fear they inspire, not by any active power for good. Both schools, then, agree in regarding the Gorgon as an evil demon and as primarily a frightful mask, not a complete figure. Recently my attention was attracted to a number of monuments which did not at all accord with the demonic interpretation, to which I had always yielded unquestioning assent, and their study has led me step by step to a most unexpected and far-reaching conclusion. It must be remembered that while classic literature has but little to say of the Gorgon myth, it was extremely popular in art from the beginning, and that in the form of the Gorgon head it counts its monuments by many thousands over a period of nearly a thousand years. So, archaeologically, the question is important. It had been treated, but not solved; for one cannot call a solution the declaration that a majority of the representations of a theme are a bit of meaningless decoration.

There are, practically, three forms to consider: (1) The full figure of the Gorgon Medusa and of her two sisters, either alone or in the Perseus myth; (2) the head of Medusa, usually called Gorgoneion; (3) the aegis, with its decoration of serpents and Gorgoneion.

It was, in fact, nearly three years ago, while studying the famous bronze candelabrum of Cortona, a late archaic product of Ionian Greek art, that it seemed difficult to explain, on the evil demon hypothesis, the presence of a large Gorgon head in the centre, surrounded by the familiar medley of fighting animals, and then by a wider zone of eight sirens alternating with eight satyrs playing on the double pipes, with a zone of dolphins, one under each of the satyrs. Why was Medusa the main figure on a monumental lamp, associated with these em-

¹ Art. *Gorgones*, in Roscher's *Lex. Gr. Röm. Myth.*; cf. Roscher's *Gorgonen*.

bodiments of earth, air, and water? It was a puzzle to be unravelled some day.¹

Some months later, in examining the wonderful sardonix cup at Naples, the "Tazza Farnese," I was struck, for the first time, by a still stranger juxtaposition.² The inner face of the cup is filled with a charming idealistic scene; the Fertility of Egypt. Euthenia reclines on a sphinx, while above her Triptolemus, lord of the ploughed field, holds the horn of plenty, as he looks to Father Nile enthroned, and is accompanied by the crop-producing Etesian Winds and the fertilizing Nymphs. On the opposite or under side the entire surface is covered with a Medusa head or Gorgoneion, corresponding in area to the scene just described. What is she doing here? Is it possible that in the Cortona lamp the Gorgon was connected with heat and light and that there was a bond in the artist's mind between her and fertility in this Farnese tazza? In these two masterpieces it will not do to say that Medusa was a mere bit of meaningless decoration. It is, in any case, a good creed not to believe in the aimlessness of antique art. So, I reserved the "Tazza Farnese" for future explanation.

It was an article by Homolle³ which gave me the first suggestion; not out of sympathy, but from opposition to his views. In publishing long ago the base of the archaic statue of Apollo by Iphicartides, the earliest signed statue, of ca. 600 B.C., he called attention to the fact that of the three corners of this triangular, tripod-like base, one was decorated with a ram's head and the other two with Medusa heads.⁴ Homolle expressed surprise at the Gorgon heads, but recalled, what Six had already shown, that in the early coinage of a number of Greek cities, the connection of Medusa and Apollo was undeniable, the two heads sometimes occupying the reverse and obverse of the same coins, sometimes being used as substitutes on corresponding coins. The French savant could suggest no explanation except that of contrast: the opposition of the principles

¹ *Mon. dell' Inst.* III, pls. 41, 42; cf. Weicker, *Der Seelenvogel in d. a. Lit. u. Kunst*, p. 100.

² Furtwangler, *Antike Gemmen*, pls. 54, 55.

³ *B.C.H.* XII, 1888, pp. 463-479; cf. Six, *De Gorgone*.

⁴ Other writers speak of one Gorgon and two rams. I cannot say which statement is correct.

of good (Apollo) and evil (Medusa). This explanation seemed quite contrary to Hellenic usage, which does not select the emblem for a god on this principle. The question of a possible connection between Apollo and the Gorgon, raised in my mind by these archaic monuments, formed a third puzzle, an attempt to solve which led, in 1910-11, to the present study.

At this point I recollected the generally known fact that the Gorgon head appears in the centre of the *triquetrum* in the coinage of Sicily, beginning with Agathocles (317-310 B.C.), and that it was there associated with ears of corn. Now, as Sicily was, ever since Homeric days, regarded as the sacred island of the sun, and as the *triquetrum* here and in Lycia was the emblem of the sun, there seemed no escaping the conclusion that the Gorgon in its centre represented the power of the sun.¹ If, then, there was a connection with Apollo, it was likely to be in his solar aspect. This was confirmed, at a very late date, by certain gems in which the Gorgoneion is placed in the centre of the Zodiac, in place of Helios or Apollo.²

What early material was there for the Medusa-Apollo connection apart from the archaic coins and the Iphicartides statue?

THE GORGON AT DELPHI. — One naturally looks for material, first of all, at Delphi. On account of the destruction of the temple, this source of reference is meagre. There is, however, an interesting suggestion in the well-known archaistic relief in the Louvre, in which Apollo heads a procession, singing the paean. The scene is Delphi, and the temple is represented in the background. The pedimental decoration³ consists of a Gorgon head flanked by two Tritons, a mere compendium, of course, of the scene supposed to be represented. The relief is certainly modelled after an original not later than 500 B.C. The scene in the pediment which is here epitomized belonged to the archaic temple and may be conjectured to be similar to

¹ *Numism. Chron.* N.S. XIV, pl. VIII, 7, 8; Imhoof-Blumer, pl. B, 23; Hill, *Coins of Anc. Sicily*, pls. XI, 10; XV, 4.

² Reinach's *Pierres gravées: Gori*, pl. 88²; cf. *Orleans Coll.* pl. 127, 97, whose antiquity has been questioned, though unnecessarily. Also Reinach, pl. 100, 35, from Mariette; cf. Gaedechen's *Gorgo*, in Ersch u. Grüber, p. 403.

³ One-half of the pediment is restored. Frohner, *Cat.*, No. 12; Clarac, *Musée*, pl. 120, 39; cf. Friederichs, *Bausteine*, No. 72.

that recently found at the temple in Corfu, which I shall describe later.

In the temple the two sacred objects were the omphalos and the tripod. In looking for any traces of the Gorgon, the Gorgoneion or the aegis in connection with them, I found quite a mass of curious data, both literary and archaeological. There is, first of all, the much-discussed passage in Euripides' *Ion*, in which to the question, "Does the dwelling of Phoebus really cover the central omphalos of the earth?" Ion replies (v. 224): "Ay, decorated with garlands and with the Gorgons 'around it,' or 'on both sides.'" The omphalos actually appears, from the one found in the excavations and from numerous reproductions, to have been covered with a sort of fillet or network, and there were two eagles placed in some relation to it.¹ This net is considered by Miss Harrison to be the aegis referred to in the expression *ὀμφαλὸς αἰγᾶτος*, and she considers the Gorgons of the *Ion* to be the Gorgoneia or goat heads left on the original skins with which the omphalos was covered. This connection of goat-head Gorgoneia with the covering of the omphalos seems to me improbable. I do not believe that either the "garlands" or the "Gorgons" seen by the contemporaries of Euripides around the omphalos were *on* it, but that they were part of a decorative enclosure. The sacred garlands, made of fruits bound to laurel twigs known to be sacred to Apollo, are carved on many monuments of Alexandrian and Roman art, and a Gorgon head was frequently placed in the centre of the curve of each garland. In this way one might, perhaps, reconstruct this decorative *motif* at Delphi.

In regard to the tripod, I will refer only in passing to the custom of late Alexandrian and Roman art to decorate with a Medusa mask each of the three faces. Such a tripod, for example, is one in the Louvre found at Ostia, marked as Apolline by the affronted griffins and dolphins of the upper border and the laurel.² A Medusa mask forms the decoration of each face. On archaic tripods it would seem that the Medusa myth appeared, not in the form of the Gorgoneion, but in that of the

¹ *B.S.A.* IX, 211, article by Wace, 'Apollo seated on the Omphalos.' J. E. Harrison in *B.C.H.* XXIV, p. 254. Cf. art. *Pythios*, in Roscher's *Lexikon*.

² Fröhner, *Cat.*, No. 90; Clarac, 121, 50.

killing of the Gorgon by Perseus or of the running Medusa. In the famous tripod-vase of early black-figured ware from Tanagra in the Berlin Museum, the entire Gorgon figure is repeated on two of the legs and Perseus appears on the third.¹ One of the archaic Greek bronze tripods illustrated in this JOURNAL (1908, pl. XIII) has Perseus and the Gorgons in the middle register, and the Gorgons in several forms recur in these and other early tripods, such as those illustrated in *Mon. Ant.* 1897 by Savignoni.² Of course such ordinary non-ritual tripods need not be regarded as determining the manner in which the Gorgon was used on Apolline tripods.

There is, also, a curious passage in the *Ion* which may seem pertinent. Creusa, in seeking to persuade Ion that he is her son, describes the swaddling clothes she made for him, which were still kept by the priests: "A Gorgon is in the centre web of the garment"—"and it is fringed with serpents like an aegis"—"ancient virgin-labor of my shuttle." Is it a mere coincidence that a Gorgoneion should be the only decoration of the swaddling clothes made for the child of Apollo in the cave of Gorgon-slaying Athene?

The identification of the aegis and its Gorgoneion with a goatskin (and sometimes with a goat head), if correct, would supply another curious link between Medusa and the Apollo of Delphi. There is no doubt that the goat was sacred to him. Pausanias tells³ of the bronze goat suckling two children of Apollo which was sent to Delphi as an offering by the city of Elyros in Crete; and of the other bronze goat sent by the city of Cleonae because Apollo had rid it of a pestilence after it had sacrificed a goat to the Rising Sun by order of the oracle. The importance of the goat in the Delphic myth is shown by the tradition that the name of the son of the dragon Pytho was Αἰξ and that there were near Delphi a stream (Αἶγας), a mountain, and a plain (πεδῖον αἰγαῖον) "of the goat." In fact, a tradition reported by Diodorus credits the discovery of the mantic properties of the Delphic oracle to a flock of goats

¹ A. Z. 1881, taf. 3, 4.

² *Mon. Ant. Lincei*, VII, 1897, 'Di un bronzetto . . . e di una classe di tripodi greco-orientale,' especially p. 352.

³ X, 11,⁴ and 10,⁵.

who were overcome with frenzy from the fumes and were the cause of the founding of the shrine.

In connection with the goat in the Apollo cult it must be remembered that the relations of Delphi with Crete were of the closest. Notwithstanding a recent attempt to prove that the Cretan worship was derived from the Delphic,¹ it remains probable that the prevalence there of the worship of the Pythian Apollo was simply a case of a return wave in historic times such as we notice, for instance, in the relations of Cyprus with Greece. Primitive Apollo cult of the pre-Delphic age, which centred in Cnossus, has left its clearest traces in the western part of the island. On the coinage of Tylosis the cult statue of Apollo is represented holding in its hand the head of a goat, and the goat appears on coins of Priansus and Polyschenia.² It is a question not yet solved by the excavations in Crete, just how the change in the island from the Minoan to the Hellenic culture affected the cults on the island, and how the Apolline worship was grafted on that of the Minoan gods. We shall see quite soon, however, how the Medusa cult fared in Crete under these conditions.

THE GORGON AT MILETUS. — The most notable shrine of Apollo in Asia Minor was the Didymaeum near Miletus. When it was partially excavated by the French,³ it was found that the only figured decoration of the frieze of the temple consisted of a Medusa head placed over the axis of each column. The execution of the frieze is attributed to the Roman completion of the temple and not to the artists of the fourth century. But that the Medusa *motif* was not decorative but significant is shown by the further discovery in the vicinity, though not on the site, of the most important early marble Medusa yet found. It is the corner block of the frieze of a large building, 0.91 m. high, and from its proportions may easily have belonged to the earlier archaic temple of the sixth century destroyed by the Persians. Its style would indicate this. The full figure of Medusa is given, kneeling on one knee, with colossal head, with four wings, and two large snakes on the top of her head, but not mingling with her hair. Her mouth is closed and her

¹ Aly, *Der Kretische Apollokult*. Leipzig, 1908.

² Aly, *ibid.*

³ *Didymes, Fouilles de 1895 et 1896*, par E. Pontremoli et B. Haussoullier.

tongue does not protrude, nor has she any tusks. She was flanked by two enormous lions, whose forefeet alone remain, with one mutilated head and breast. They connect her with the Great Mother and the so-called Persian Artemis. The importance of this will shortly appear.¹

THE GORGON AT CORCYRA. — A large archaic Doric temple has recently been excavated in Corfu, at the ancient Coreyra. It is reported to have been identified as a temple of Apollo, but there seems as yet no proof of this.² Its date is shortly before or after 600 B.C. The sculptures of the western pediment, of which the larger portion have been found, take a special place in this study. The central figure, of much larger size than the rest, is Medusa, represented as resting on her right knee. Her enormous round face has wide-open mouth with protruding tongue and teeth exposed, and is encircled by snakes that frame the face between the ears. Below each ear a large bearded snake projects horizontally in front of a row of four long twisted curls that fall on the breast. She wears a short Doric chiton bound at the waist by a belt of two twisted snakes who rear their heads and curving necks heraldically, while behind her waist-line appear the coils of two snakes which may belong to the two snakes that project over her shoulders. She has four wings: a pair of upcurving wings with short feathers and a pair of wide-spreading drooping wings with long feathers. Her heavily muscled legs are shod with winged shoes. Both arms are outstretched to embrace her two offspring, Pegasus and Chrysaor. Pegasus, on her right, springs toward her, resting his forepaws on her forearm, while her arm goes around his

¹ The thorough excavations now being carried on at the temple by the Germans under Wiegand will probably furnish a clew to the Gorgon connection.

² The modern name of the site is Garitsa. Excavations were begun there in April by the Greek Archaeological Society, in charge of the Ephor Versakis. They were later placed in charge of Professor Dörpfeld and completed at the expense of the German emperor. Brief notices have appeared in the *Tag* (Berlin), the *London Times*, and the *Ἀθήραι* (Athens) in May, that in the *Tag* containing a very inaccurate restoration of the pedimental sculptures. A note appeared also in the *New York Times* for June 18. Dr. Dörpfeld has had the extreme kindness to send me a photograph of a part of the pediment as restored *in situ*, at Corfu, for my private use only, as publication is reserved for the Greek Ephor. This and his very helpful remarks reached me after the manuscript of this paper was completed. Later I may, perhaps, be allowed to quote from his letter. [See also the item 'Corfu' in the department of 'Archaeological News.']

winged shoulders. Chrysaor, on her left, stands, a strongly muscled man, front face and bust, but legs in profile. Both these children of Medusa are small in proportion, not a quarter of her bulk, and mere appendages. Beyond them, on either side, is an enormous reclining lion, of the same proportions as the Medusa. They are not, as has been suggested, ornamental, but are evidently animals sacred to Medusa and brought into juxtaposition with her and not with the intervening figures of Pegasus and Chrysaor. Medusa is conceived here, therefore, as the Great Mother, as both a serpent goddess and a mistress of beasts. She is the mother of Pegasus and Chrysaor as a living goddess and not as a beheaded mortal. Beyond the lions on either side are very small figures representing the conflict of the gods and giants. On the right, Zeus with thunderbolt is overcoming a giant; on the left, a giant lies dead in the angle, and there is in front of him an altar behind a seated female figure. But these two ends are too fragmentary for satisfactory explanation, except to recall the connection made in Greek legend between Medusa and the fight between the gods and giants. One fact is certain, Medusa occupies the centre as a great goddess, as Athene does, for example, in the temple at Aegina. The lions show that she was the equivalent of the Cybele, Artemis or Great Mother, who is accompanied by or holds lions or birds. The subject, as represented in the Didyma Medusa, is thus filled out in detail so that there can be no question that in both cases we have a Medusa. In my next paper I shall have more to say of the offspring of Medusa, but meanwhile I cannot avoid expressing the belief that the mysterious Chrysaor is none other than the Hellenic Apollo, as I expect to prove. As to the deity to whom the temple was dedicated, considering the equation Artemis = Medusa, this may be a temple of Artemis and not of Apollo. Years ago it was shown that Coreyra had an important temple of Artemis, the Mother Goddess, by the discovery of a large deposit of archaic terra-cotta figurines of the goddess, as the wingless *Πόρνια θηρῶν*, the beast-subduing Mother Goddess.¹

¹ *B. C. H.* XV (1891), pp. 1-112. This is the most varied and artistic known series of Artemis = Mother Goddess figurines; they date from the sixth to the fifth centuries.

MEDUSA AND THE MISTRESS OF BIRDS AND BEASTS.—The above conclusions change the situation that has thus far prevailed; for the Gorgon and the Artemis types have been considered as quite distinct. There are coins, gems, vases, etc., of the seventh, sixth, and fifth centuries, on which a Gorgon, whom for convenience we may call Medusa, is represented with one snake held in both hands, or with two snakes, one in each hand, with two snakes at her belt, or, in the scene of her decapitation, drinking her blood. On the other hand, there is a numerous series during the same period of winged and wingless female figures, holding in either hand an animal (especially a lion) or a bird (especially a swan or goose). Most of these figures have heads in profile; only a few, like the Cameirus platter with the swans and the Warren gem with the lions, show the front face of the Gorgon type. Even in these cases it did not appear certain that we should recognize a Medusa rather than some related Gorgon-like spirit, because in neither case were there serpents either in her hair or at her waist. Therefore no attempt had been made to connect the Medusa with the Mistress of Wild Things, as Miss Harrison calls her.¹ Even the Didyma Medusa with her lions does not appear to have given the necessary clew. Now, however, the Corcyra Medusa connects her definitively with the Great Mother, and the important matter is to ascertain just what the relationship is and means, and what bearing the Artemis connection has on the Apollo connection.

MEDUSA IN CRETE, AND THE SNAKE GODDESS.—It is recognized that Asia Minor and the islands received and continued to reflect the Minoan civilization for several centuries after its destruction in Crete. The close and early connection of Crete with Phrygia, Lydia, and the Hittites is also an acquired fact. Here was the origin of the Apollo cult; here, also, was the development, if not the origin, of the Artemis cult. So, it is not surprising that further explanation should come to us from the recent excavations in Crete, which have

¹ For list and illustrations of the Goddess of the Beasts and Birds, see, for the winged type, Radet, *Cybbé*; cf. Thompson, *J.H.S.* 1900, p. 286. J. E. Harrison, *Proleg. Greek Relig.* p. 194, has a glimpse of the truth, much distorted, and Radet seems to suspect it.

disclosed a continuous civilization beginning at the neolithic age.

There seems to be no doubt that the splendid Minoan civilization had the nature goddesses as supreme deities, and that the supremacy of male gods was a revolution gradually effected by the conquering Hellenes. Whether it was one goddess presented under different aspects, or several distinct goddesses, is not yet absolutely certain; but the evidence seems to be in favor of a single earth or nature goddess, the Great Mother.



FIGURE 1.—SNAKE GODDESS OF PALACE-SHRINE AT CNOSSUS.

Mr. Evans presents her as the prototype of Rhea, Cybele, Persephone, Artemis, and the rest of the nature goddesses. She appears mainly under three aspects: as the mountain and lion goddess; as the snake goddess; as the dove or bird goddess.¹

¹ Evans, *Mycenaean Tree and Pillar Cult*, and especially *B.S.A.* IX (1902-3), pp. 59, 74-87; cf. VII (1900-1), p. 29; VIII (1901-2), p. 28, and X (1903-4), pp. 222-223; Milani, *Studi e materiali*, III, pp. 126-129.

In all three aspects she bears upon the Medusa question. Among the most interesting and artistic objects discovered by Mr. Evans at Cnossus are some porcelain or faience figurines and other votive objects belonging evidently to the shrine of a Mother-Snake-Goddess. They at once became famous as unique both in theme and in artistic form. The goddess (Fig. 1) herself has a high tiara or *polos*, a richly embroidered, short-sleeved jacket, and laced bodice that leaves the prominent bosom bare, and a long hoopskirt, with a short, apron-like overskirt. Her face, with wide-open eyes, is framed in the coils of two serpents. One of these serpents is held in her two outstretched hands; its tail resting in her left hand, it winds up her arm



FIGURE 2.—VOTARY OF THE CRETAN SNAKE GODDESS.

over her shoulder, descending behind to follow the outlines of back and hips, ascending again symmetrically, passing over shoulder and arm to have its head rest in the left hand. With its tail coiled about the goddess's right ear, the second snake descends, framing neck and bosom and waist, crossing the waist, coils down the front of the apron, and ascending, is knotted at the waist, where its head is reared in the centre. A third snake, with its tail entwined in the snake girdle, ascends symmetrically on the opposite side, twists about the left ear, mounts the tiara, and rears its head on top of it like an Egyptian *uraeus*. The snakes are green spotted with purple brown, and the details of the goddess are purple brown, purple, or black. With this figure were found parts of two others, apparently priestesses of the goddess (Fig. 2), with flounced instead of hoop skirts, and without any snakes except the two small snakes which they brandish, one in each raised and outstretched hand, in the per-

formance of a ritual dance. Their bosoms also are bare, with low, V-shaped bodice; and their long hair is left to fall, loose, to the hips. There were also a number of votive dresses of similar type, which helped in the restoration of the figures. Of course the snake-goddess is a personification of the fertile earth in its sub-soil aspect, which we are apt to call chthonic.¹

In her other form of mountain and lion goddess, or goddess of the life on the earth, the earth-goddess is represented frequently holding or accosted by lions. The most complete form is on a seal from Cnossus (Fig. 3), where the goddess stands, with lance extended, on the summit of a mountain, — the prototype of Athene Promachos and Acrisia, —



FIGURE 3. — CRETAN MOUNTAIN MOTHER.



(a)



(b)

FIGURE 4. — (a) THERAN ARTEMIS AND (b) CRETAN GODDESS.

4) as showing how the islands continued Cretan traditions centuries after the fall of Minoan power.³

In the excavations at Palaikastro (Heleia), also in Crete, a group of rather crude ritual objects came to light, which evi-

while the two heraldic lions rise from its base.² In the form not of an image to be worshipped but as a goddess in action, she appears with one lion in an attitude so similar to the Artemis on a vase from Thera that I give them side by side (Fig.

¹ B.S.A. IX, pp. 74 ff.

² B.S.A. VII, p. 29.

³ B.S.A. IX, p. 59, and Radet, *Cybéè*, p. 12, with references.

dently belonged to a shrine of the snake goddess,¹ and which supplement the more artistic Cnossian statuettes. Here, also, is the goddess with her votaries; and the three votaries are represented as performing a circular ritual dance, with arms extended, so that they touch each other around the goddess. The goddess stretches her arms forward, holding in both hands a striped snake.² The figures have the typical crinoline skirt. The most interesting feature of the find is that besides the figures there were several doves; three of which may have stood on votive pillars, and one on the head of the goddess herself. These sacred doves, forming the most important feature of the shrine after the figures themselves, indicate the essential unity of the snake goddess with the dove goddess.

It remains now to see whether the connection between Medusa and the Mother Goddess, suggested by the Corcyra pediment, can really be dated back from the sixth or seventh centuries in Asia Minor to this Cretan prototype, so many centuries earlier. The main two elements, the snakes and the lions, certainly characterize both, but the artistic form of the Gorgon is so absolutely different from the Cretan prototype that it requires more than this analogy to give us the certitude that, in the ancient mind, the two were identical or even closely affiliated. Crete itself seems to furnish this necessary proof.

Many centuries later than the objects just described, after Minoan culture had vanished, when the Eteocretans dominated at Praesus, the Dorians at Heleia, and when male gods, especially Apollo and Zeus, had been set at the head of the Pantheon, Palaikastro furnished an interesting example of the substitution of the independent worship of Zeus Dictaeus for that of the Earth Mother, also connecting with her the concept of the Gorgon Medusa.³ The temple was first built in the sixth century, and rebuilt or restored at various later dates. To the early date belongs an antefix formed of a Gorgoneion with six snakes, three on each side, quite unconnected with the hair. It is of the type with open mouth, four tusks, and extended

¹ The discovery of the Snake goddess on other sites, at Gournia and Prinias, shows that she is a generic Cretan divinity.

² *B.S.A.* X, p. 217.

³ *B.S.A.* XI (1904-5), pp. 303-305; cf. X, p. 223.

tongue (Fig. 5 *a*). This antefix does not differ essentially from other archaic Gorgoneia with serpents, and, taken by itself, we should have no reason to regard it as proving any connection between Medusa and the Cretan goddess. But, when the temple was restored at a later date, another form of antefix appeared which is of the greatest value in this study. It furnishes quite a new type, that of the beautiful Medusa (Fig. 5 *b*). It gives her a body robed in a Doric chiton, and so is not a Gorgoneion. She is represented on the antefix to below the waist, and there are four snakes; two she holds in her hands and two spring from behind her shoulders. There are no snakes connected with the hair, which is carefully and rigidly arranged, not at all in the way common at any time in the usual Hellenic types. The mouth is open and the tongue protrudes, but no teeth are indicated. This type was not a "freak," but we may be allowed to believe it a normal one in Hellenic Crete of the fifth or fourth century B.C., because antefixes of exactly the same type have been found at Praesus in a temple also thought to be that of the Dictaeon Zeus. It is interesting that on early coins of Praesus the Gorgoneion occupies the obverse.¹ Mr. Bosanquet thinks, especially in view of the numerous votive lions found here, that the worship of the Mother Goddess was preserved by the Dorians by the side of that of her son; the relationship between the male and female deities of the Minoan age being merely reversed. What is important is this: that the figure and head recognized as that of the Gorgon is identified by the Cretans with the old snake goddess, and this carries the same consequence for the archaic Gorgoneion, and if for it, then why not for



FIGURE 5. — ANTEFIXES OF PALAIKASTRO AND PRAESUS.

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¹ W. Wroth, *Brit. Mus. Cat. of Greek Coins of Crete, etc.*, p. 70.

the entire Gorgon tribe in Greek art? In the Crete of that time it would seem, therefore, as if Medusa and Artemis were one, and were the same as the old mother snake goddess of the Minoans. Not having been subjected, as it was elsewhere, to oriental influences, the Medusa type has not become winged, and yet it has the contamination of the protruding tongue.

ARTEMIS-MEDUSA IN ASIA MINOR AND UNDER ORIENTAL INFLUENCE. — Passing now from Crete to Asia Minor, where we are led to believe that the ultimate type of the Medusa was created, we find that the next step is to investigate how, during the centuries that elapsed between the making of the Minoan snake goddess, some time before *ca.* 1600 B.C. and the period of the earliest Asia Minor or Laconian figures of Artemis and Medusa in the seventh century, the addition of the wings took place as well as the various other changes, the sum of which constituted the normal Gorgon types. We judge, mainly from gem cuttings, that down to its close, Mycenaean art had not given wings to its figures of the Mistress of Wild Things, the earth mother. This would bring us to about 800 B.C.

In the first place, the Cretan type of snake goddess was known in Asia Minor. This is shown by the bronze statuette from the Troad now in Berlin¹ with similar costume, snake belt, snakes on arms and on top of head, nude breasts, etc. The art is Mycenaean, and there are no wings. Now the Mother Goddess in her aspect of queen of the animal kingdom appears to have been the dominant divinity of a large part of Asia Minor. In Lydia, at Sardis, she was called Kybebe; in Phrygia she was the better known Cybele; in Ionian Ephesus she was Artemis. Works of the eighth to the sixth century from these regions, and particularly from Smyrna, Dorylaeum, Cameirus, Rhodes, Thera, etc., show her with two (or sometimes four) wings of the oriental upturned type, usually holding in each hand a lion by the tail, or else a waterfowl.² Then comes a mass of such figures in vases, bronzes, jewellery, and terra-cottas of the islands and the mainland, dating from the seventh and sixth centuries, showing how universal was

¹ Perrot and Chipiez, VI, Figs. 349, 350; Furtwängler, *Aegina*, p. 371, Fig. 296.

² Radet, *Cybbé*; Thompson, in *J.H.S.* 1909; and Studniczka, *Kyrene*.

the spread of the cult and its representations. Among them all there is one that stands out as a typical connecting link between the entire group and the Cretan goddess; it is a decorative group on the handle of a bronze vase found at Graeckwyl which favors Evans' hypothesis of the unity of the Cretan goddess (Fig. 6). In this bronze the lion-goddess, the snake-goddess, and the dove-goddess are all one person.¹ She is winged, showing the Hittite contamination, and her hair is in the Egyptian style. The prominence and nudity of her bosom is a thoroughly Cretan trait. She wears a small *polos*, on the summit of which is perched a bird, probably a dove. From the back of her head, there project, on either side, almost horizontally, two enormous bearded snakes, on whose backs rest two young lions. The goddess holds by each hand a hare, and two large lions raise one paw to rest it against each of the goddess's hips. She is the perfect type of an animal tamer giving a performance. The date of this extraordinarily interesting piece, is thought to be the sixth century. There is not, however, a trace of the Medusa type in the figure of the goddess, who varies from the Cretan mainly in her costume.



FIGURE 6.—FROM THE GRAECKWYL BRONZE VASE.

If this bronze is a perfect archaic survival of the Cretan goddess, there is a Hittite seal in the De Clercq collection² which will show this type transformed under Asiatic influence into the proto-Medusa form. In this elaborate scene the Gorgon-Artemis has four wings and rests on the backs of two winged fabulous animals that stand tail to tail. They have lions' bodies, but curious horned and bearded heads, which seemed

¹ Radet, *Cybéé*, p. 29, and Bertrand, *Arch. Celt. et Gaul.* 2d ed. Fig. 89.

² Ménant, *Cat. de la Coll. De Clercq*, pl. XXXIII, No. 357. Ménant has not recognized as such the heads of the bearded snakes.

to Ménant to resemble goat heads. The goddess holds two winged animals head down, with bodies like tigers or panthers and with human heads. From each side of the goddess's head two bearded snakes spring almost horizontally. The goddess herself has the round, staring, Gorgon type, so far as it could be given on so small a scale. As we shall see, it is from such Hittite concepts that several of the Gorgon traits are derived.

These two examples will be for the present sufficient to connect the Cretan goddess with different phases of early work in Asia Minor. We may now examine the Anatolian products as a whole.

There were three main sources from which, directly or indirectly, by contamination with cognate mythological figures, the Artemis and Medusa types could have been transformed or evolved: Egyptian, Hittite, and Assyrian. Babylonian art during the eighth and seventh centuries was moribund; Persian art had not yet arisen. It is especially among the seals, cylinders, and ivories that the material can be found. The following points are important for the Medusa type: (1) the added wings; (2) the round face; (3) the protruding tongue; (4) the beard; (5) the standing attitude, with legs in profile, one being advanced and often uncovered; (6) the kneeling attitude, with one knee on the ground; (7) the running attitude, with knees slightly bent; (8) the attitude with one or both arms raised above the head, assumed sometimes both by the standing and the kneeling figures. In considering these points it must be remembered that while we have found, previous to 1500 B.C., the existence of a snake goddess and a mistress of beasts, whose plastic forms were afterwards assumed by Medusa, we have not yet discovered the existence before *ca.* 700 B.C. of a separate plastic representation of Medusa as distinct from these goddesses. It is the disentangling from the goddess of her material forces which results in the creation of the plastic Medusa type, after *ca.* 800 B.C.

In looking for the prototypes, the first question is as to the source of the upcurving wings which became characteristic of Artemis and Medusa. A glance at the plates of the De Clercq collection of oriental cylinders—a typical collection—shows,

as do also such Hittite rock reliefs as that of Eflatun Bunar,¹ that this form of upcurving wing is peculiarly Hittite and not Egyptian or Assyrian. The attitude with one exposed leg, so characteristic of the earliest known Greek Medusa-Artemis, on the Cameirus plate (seventh century), appears in Hittite figures like the caryatids of the sun-disk (Fig. 7), at Eflatun Bunar, where we see also the full, round face and the raised arms. The Gorgon-like face of the Hittite Mother Goddess in the De Clercq seal has already been noticed.

There is also an Assyrian seal cylinder with Egyptian contamination, which is interesting to notice because it has in the centre the figure of Bes, the Egyptian counterpart of the archaic Medusa. Its two raised hands under the winged disk hold flowers and do not actually support the disk, this being done by two caryatids of pure bearded Assyrian type.² After even a cursory examination of the Hittite-Assyrian material, one is driven to the conclusion that the figures of types cognate to Medusa-Artemis were connected almost exclusively with sun worship when not confined to that of the earth goddess. There is great variety in the Assyrian material. An ivory from Nimrud in the British Museum gives the type of a wingless mistress of beasts holding the lions that may date before 800 B.C., but of the winged type there is no trace. On the other hand, the conflict of Marduk and Tiamat furnishes several winged types: such as Marduk attacking the female monster with a sickle, like that often given to Perseus; a hero or winged god kneeling on one knee and subduing one or two winged animals; a similar figure standing and holding one or two animals or birds by the tail or leg. In almost every case there is on the same work a winged sun-disk alone or with adorers or supported by one or more caryatid figures.³ The earliest of these works seem to date from the ninth century. Evidently the functions



FIGURE 7. — HITTITE
ROCK-SCULPTURE,
EFLATUN BUNAR.

¹ *A.J.A.* 1886, pl. I.

² Furtwängler, *Antike Gemmen*, pl. I, 12.

³ See Ward, *Oriental Seals and Cylinders*, and the *Cat. de la Coll. De Clercq*, passim. Consult Furtwängler, *Antike Gemmen*, esp. pl. I.

assigned to male figures in oriental art were in this case assigned by proto-Hellenic and Hellenic thought to female personifications. This contamination of male and female types may explain the curious male and bearded Gorgon which is so frequent in the archaic period and evidently grew up outside both of the nature-goddess sphere and of the Perseus saga.

In this connection an important rôle is played by Bes.¹ In the transformation of the Medusa idea from earth-force to sun-force it is probable that the Bes contamination was important. This foreign god, introduced into Egypt at some unknown date, furnishes the exact counterpart of the Cretan goddess, because he was a sun-god, a snake-god and a beast-king, as well as a chthonic deity. He was this, however, only as an embodiment of the higher and more spiritual divine beings representing these ideas. That is, he embodied the force of the sun-god Horus, etc. He was a sun-carrier, a sun-caryatid, a sun-embodiment. In this function he performs precisely the part I have assigned in the Hellenic sphere to Medusa; and his late appearance as a separate plastic figure in Egypt corresponds exactly to the late appearance of the plastic type of Medusa long after the Medusa idea had existed. The diffidence shown by archaeologists in acknowledging the evident plastic connection between Bes and Medusa will certainly vanish as soon as their basal concept is seen to be absolutely identical. Only the sex differs. Nothing could more delightfully express this correlation than two scarabs apparently of Phoenician workmanship,² in one of which Bes is holding the Gorgon head above his head, while in the other the Gorgon is holding the head of Bes! They were evidently considered interchangeable symbols! The question will be discussed later whether the protruding tongue also came to Medusa from Bes.

The earliest Gorgon leg attitude, as shown on the Cameirus plate (Fig. 8) was the same as that of the Hittite sun-caryatids as shown in the Eflatun Bunar relief; that is, with one leg ex-

¹ An excellent summary is given in the article *Bes*, in Roscher's *Lexikon*. The scepticism as to the dependence of certain features of the Gorgon type on the Bes type, shown by Six, *De Gorgone*, is not based on valid reasoning and is largely due to his misconception of the Gorgon.

² Furtwängler, *Antike Gemmen*, pl. XV, 67 and 69; cf. 72.

tended and uncovered. It appears, with even closer dependence on Hittite models, in such works as the Theban aryballus at Oxford (Fig. 9). The other part of the Hittite attitude — the raised arms — appears in other early Gorgons, *e.g.* the Perugia bronze handle and the so-called "Anubis" buccero vase at Chiusi. But very soon the wingless, motionless caryatid scheme was replaced by the winged type both motionless and in motion, with knee bent, the attitude made famous by the so-called Nike of Archermos. The attempt to call this kneeling attitude the normal



FIGURE 8.—GORGON AS MOTHER-GODDESS, ON CAMEIRUS PLATE, BRITISH MUSEUM.



FIGURE 9.—ARTEMIS ON ARYBALLUS AT OXFORD.

archaic mode of representing the act of flying is perhaps questionable in its initial stages. But it would be perfectly normal for the running or flying caryatid; that is, for the figure moving under a superimposed weight such as the sun-disk. This is what Medusa seems to have become: the moving sun-caryatid, as she was also the mother-goddess caryatid. The Assyrian and other oriental seals and cylinders show that this conception was a common one both in attitude and function. Even when perfectly immovable, as an object of adoration, in the way she appears on the Corcyra pediment, she preserves this kneeling attitude.

There were, of course, several stages in the process of assimilation of oriental and Egyptian traits under the influence of sun worship, by which the Gorgon Medusa passed from being mainly a fecundity goddess, an alias of the Mother Goddess, with a solar connection added to the central idea; to the second stage of being primarily

a sun-spirit, associated with the Mother Goddess, as embodying the fecundating and destructive effects of the sun. The Cameirus plate of the seventh century, already cited, illustrates the first stage, in which Medusa holds the birds of the Mother Goddess and shows little trace of sun worship. The archaic bronze Perugia vase handle in Munich¹ represents a slightly later stage, even though the figure is not winged, with the crouching Bes-like Medusa holding two lions by the neck, but not associated with snakes. A middle stage in which the two elements are evenly balanced is illustrated by the Coreyra pediments. In the Selinus metope the Mother Goddess has disappeared and the solar element has triumphed, though here Medusa and Pegasus are both wingless. This is one of many proofs that both winged and wingless types existed at the same time; as we shall find that the snake and the snakeless types and the closed and open-mouth types coexisted. A classification of the monuments in my next paper will suggest how racial and local traditions more than age produced these differences. The consideration of Medusa as sun-carrier has brought us at last to the Gorgoneion.

THE GORGONEION AND ARTEMIS ORTHIA. — Of course the most crucial question of all is: When and why did the idea of beheading the Medusa arise, — of transforming into a mere head this composite Nature and Sun Spirit? For contrary to many critics, I find it no longer possible to deny, with the evidence just given, that the whole figure preceded the head. In order to answer this question, we must first see what was the form, and hence the meaning, of the head. All critics recognize that it was circular, but none appear to have concluded that it was the sun disk itself. This,



FIGURE 10. — MEDUSA AS THE SUN-DISK. ARCHAIC VASE FROM CORNETO.

however, is susceptible of proof. In a large archaic urn (Fig. 10) from Corneto, belonging to the Blacas collection,² there is

¹ Levezow, *Ueber die Entwicklung des Gorgonen-Ideals*, pl. I, 2.

² *Ibid.* pl. II, 21.

a carefully drawn Medusa head inscribed in a circle, and this circle is enclosed in a narrow yellow nimbus from which radiate twenty-eight snakes. Now it must be noted that the snakes are separated from the head around the entire circumference by this golden nimbus, intended evidently to represent the edge of the sun disk. The detachment of the head from the nimbus, which is here only partial, is made complete in the head of an archaic cylix in Philadelphia,¹ where the hair, as well as the face, is disconnected. This arrangement of the snakes in a complete circle around the Gorgon head is a common archaic form; the snakes representing, of course, the sun's rays. The sun-disk idea seems to have been continuous, appearing as late as the age of the Antonines in the medallion that encloses the Gorgoneion.

Now there is an insignificant little lead offering found in the excavations of the Artemision at Sparta (Fig. 11), which would appear to be a connecting link between the Gorgoneion, as the sun-disk, and the entire Gorgon, as the sun-carrier or caryatid.² In this piece the face of the Gorgon is inscribed in an absolute geometrical circle, with heavy raised border, to which the primitive, almost acrolithic body seems a mere appendage. From the body snakes radiate. The arms are raised high along the globular head in the caryatid attitude, and from the head springs the head and bust of some deity, too minute for identification. On its right a lance and on its left a snake (?) spring also from the Gorgon head. Here, then, is the transitional stage. The little lead figurine may date from the seventh century B.C., and probably the find contained many like it. It is only one of many indications that in this Laconian sanctuary of Artemis Orthia, the Gorgon (and the Gorgoneion) was the principal emblem of the goddess. It was probably, then, shortly before the seventh century that the idea of the separate Gorgon head occurred, and that the sun-carrier was transformed into the



FIGURE 11. — LEAD FIGURINE FROM SPARTA.

¹ In the Museum of the University of Pennsylvania.

² *B.S.A.* XIV, p. 24, Fig. 9.

material emblem of the sun-disk. This would give the earliest date at which the conception of the aegis with the Gorgon's head could have been used in Greek literature. The descriptions of the aegis in the *Iliad* might then have been written in the eighth, or possibly as early as the ninth, century, but hardly before. The birth of Athena from the head of Zeus was probably a male adaptation of a Mother-Goddess myth, as here illustrated. Proof of this appears in such works as the primitive marble idol in Carlsruhe, in which a tiny figure is perched on the head of the mother, evidently the child.¹

The little leaden Medusas were not by any means the only Medusa material furnished by these excavations of the British School in the Sanctuary of Artemis Orthia at Sparta, with its wealth of votive objects of the eighth, seventh, and early sixth centuries.² In fact, they give for the Greek mainland the almost exact Doric counterpart of the Cretan nature goddess, with the changes and additions which the type underwent after being subjected in Asia Minor to Egyptian, Hittite, and Oriental contamination. Artemis Orthia has the uncovered breasts. She has the lions. She appears sometimes wingless and sometimes winged. She is associated with the horse, the water-birds, the snake, the griffin, the dove, etc. She has apparently a male bearded counterpart, as was the case in Crete, and, as in that case, it appears to be Zeus. Her worship also furnishes the final proof of the connection between Artemis and Medusa. In one plaque she is accompanied by a large snake, and snakes abound on the vase-paintings. Among the ritual objects a very large number have the Gorgoneion. This is the case with the plates, the drinking cups, and the vases, where the Gorgoneion continually appears as the central *motif*, in such a way as to have shown the excavators themselves that there was a ritual connection. Finally, the Perseus myth was adopted and represented on an ivory fibula-plaque, ascribed to the early sixth century. Artemis Orthia appears as one of the most primitive figures in Hellenic mythology up to the present illustrated by numerous finds. She is distinctly a nature and fertility god-

¹ Perrot and Chipiez, VI, p. 740, Fig. 332.

² See the *B.S.A.* beginning in Vol. XII; cf. M. S. Thompson, 'The Asiatic or Winged Artemis,' in *J.H.S.* 1909, p. 286.

dess, and a phallic deity. When the closeness of the relations between Sparta and Crete are considered, the religious affinity seems natural. It must have been established at a very early date. The second most important relationship of Sparta, that with Delphi, would explain the solar element, in case that were not thought to have been an oriental contamination. It is not too much to say that the finds here prove that *the Gorgon was the principal embodiment of Artemis Orthia*, who was the counterpart both of the Cretan and the Anatolian goddesses, and this harmonizes with all the previous indications. It is important to note that as these Spartan types appear to have been formed as early as the eighth century, they antedate anything yet discovered in Asia Minor or the islands, except Crete.

MEDUSA, ARTEMIS, AND THE HORSE. — Before the constitution of the orthodox Medusa and Gorgoneion, there seem to have



FIGURE 12. — PERSEUS AND MEDUSA ON AN ARCHAIC BOEOTIAN VASE.

been other attempts at embodying the material energy of the nature goddess. I shall note merely one form, the horse, because it enters into the classic Medusa myth and survived in the form of Pegasus. It is hardly necessary to refer to the fact that in ancient myth the horse was an important solar emblem and that the centaurs are quite commonly considered as personifications of the solar rays and as children of Apollo and Hebe, etc.

One of the rare large early Boeotian amphorae with reliefs, published by De Ridder,¹ has, as main decoration on the neck, Perseus killing Medusa (Fig. 12). To a complete female body the artist has attached all but the forequarters of the horse, doing it awkwardly, as the Gorgon is in front view and the horse in profile. Medusa is nude to the waist. She has no

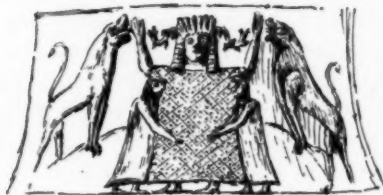


FIGURE 13.—THE MOUNTAIN MOTHER GODDESS.

wings, no snakes, or tusks or protruding tongue; in fact, none of the facial peculiarities, except roundness of outline, that are connected with the regular archaic type. Evidently, this type represents quite another tradition, perhaps, of Cretan origin.

The upcurving ends of Perseus' shoes suggest, however, Hittite influence. The salamander over Medusa is a solar allusion. A solar emblem is also the long-stemmed lotus or lily. A second vase, also in the Louvre, had the same scene, but it is fragmentary. A third vase of the same series, also found at Thebes, has in the same place the scene of the adoration of the Great Mother by her two votaries flanked by two lions, whose fore paws rest on a hill, showing the goddess to be the mountain goddess, lineal descendant of the Cretan (Fig. 13). In both cases, the body of the vase is decorated with two zones of animals, hinds above and stags below. The association of the goddess with the Hippo-gorgon is evident.



FIGURE 14.—SCARABS WITH HIPPO-GORGONS.

There are several small works which show the Gorgon as a Hippo-gorgon at about this time, *i.e.* seventh century. Of two scarabs (Fig. 14), adduced by De Ridder in this connection, the one in which Medusa is holding a lion shows the wings attached to the human shoulders, whereas in the other, where she is holding a wild boar, the wings are attached to the horse. In the first,

¹ *B.C.H.* XXII, 1898, p. 439, pls. IV, V.

six snakes radiate from the head; in the second, there are no snakes. There is nothing resembling the typical Gorgon mask in either. The use of wings shows that, in works contaminated by oriental art and produced either in Asia Minor or the islands, the Hippo-gorgon was current as well as in Boeotia, and, probably also, Arcadia. There is also another interesting instance, the Cameirus electrum necklace¹ of the same period (seventh century). Here two subjects are repeated alternately on the plaques: the "Persian Artemis" and



FIGURE 15. — ARTEMIS AND HIPPO-GORGON, ON CAMEIRUS NECKLACE.



FIGURE 16. — FRAGMENT FROM SHRINE OF ARTEMIS ORTHIA.

her embodiment the Hippo-gorgon (Fig. 15). Here Artemis is holding the lions and Medusa a hind, and the artist has come closer to nature than in the Boeotian vase. Another mode of association appears in the votive offerings of Artemis Orthia and cognate finds, where the Gorgon head is made to rise from the crotch between two heraldically disposed horses' heads (Fig. 16); and this type is supplemented by figurines, between two horses, of Artemis herself.² The earliest stage would figure the Gorgon as all horse (Fig. 17). This is illustrated in early Boeotian ceramics; for instance, in a terra-cotta coffer from Thebes, where the decoration is in the form of two metopal scenes, evidently closely related.³ In one, the Mother of Beasts holds two birds; in



FIGURE 17. — TERRA-COTTA COFFER FROM THEBES, BERLIN MUSEUM.

¹ Radet, *Cybèbè*, Fig. 7; Salzmann, *Nécrop. de Camiros*, pl. I.

² *J.H.S.* 1909, p. 286 ff.; article by M. S. Thompson.

³ Radet, Fig. 17; cf. examples in *J.H.S.* 1909, p. 286.

the other is a horse, bridled and stabled, the counterpart of the goddess. Of the numerous horses in works of the Dipylon and geometric styles,¹ a number must be interpreted from the same point of view, but the earliest connection of the horse with the worship of the Mother Goddess is, perhaps, the extraordinary seal impression of Cnossus,² which seemed to Evans to commemorate the importing of the horse into Crete from Libya, home of the Gorgon, and also, probably, the source of the Cretan people and civilization. The large-sized horse, bitted and harnessed, stands proudly, a ritual figure, in front of a long vessel, still manned by its rowers. From this germ, perhaps, comes the Boeotian Centauress Medusa, and the scene on black and on red figured vases, etc., in which the slain Medusa is capped with a horse's head, forming a figure like the Demeter of Phigaleia with the horse's head, another *alias* of Medusa as the Chthonic Mother.

This phase of the myth was soon rejected, and is important here not merely on account of the Popeidon and Pegasus connection, but because it had no elements of a "horrible" Medusa head, and furnished good evidence that the horrible or bogey idea is mainly a figment of modern critics based on a few exaggerated or misunderstood expressions in ancient authors. The exact place of the horse in the myth need not be considered here. Its importance would naturally have been emphasized in such naturalistic regions as Arcadia and Boeotia.

We have now come to the end of our preliminary pilgrimage, returning to the Greek mainland with Artemis, after having left it with Apollo. At this point we can take certain premises for granted, and can then proceed in a systematic and historic manner to reconstruct in subsequent papers the entire figure of the Gorgon and the Gorgoneion.

These premises are :

- (1) That there was an early connection with Apollo and the sun.
- (2) That there was an even earlier connection with Artemis in her aspect as Nature and Fertility Goddess, also with other Nature goddesses.

¹ *E.g.* in *B.C.H.* XXII, p. 274, a Boeotian specimen of Dipylon.

² *B.S.A.* XI, p. 13.

(3) That these two ideas were amalgamated and incorporated in the Gorgon at some time later than *ca.* 1000 B.C. and before 600 B.C.

(4) That the Gorgon myth is an early, broad, and important nature myth quite different from the usual conception of it, and that its plastic expression included elements taken from Egypt, Crete, the Hittites, Assyria, and primitive Asia Minor.

A. L. FROTHINGHAM.

PRINCETON, N. J.,
July 5, 1911.

TWO UNPUBLISHED OEDIPUS VASES IN THE
BOSTON MUSEUM OF FINE ARTS

THE first of the vases which I propose to discuss in this paper is a small Attic lecythus,¹ of careless modelling and rude design, which, though it has little to recommend it from the artistic point of view, shows some interesting technical peculiarities and throws light upon a version of the Oedipus myth that has been discussed with considerable animation and widely divergent opinions by Jahn² and Overbeck.³ Somewhat later A. S. Murray took up the question,⁴ but in view of the vase now under discussion his conclusions seem exceedingly doubtful.

The body and mouth of the vase, the outer surface of the handle, and the upper surface of the foot are covered with an uneven coating of the customary black glaze of the Attic vases. The neck and shoulder are of a reddish tinge, probably produced by an artificial deepening of the natural color of the clay. On the shoulder there is a carelessly executed ray and dot design. The figures were first painted on the black glaze in red, and then a layer of white was superimposed. A great deal of the latter has flaked off, occasionally carrying the red color with it, but the indications are that originally the red served merely as a foundation, and was nowhere visible. Shallow incisions, not penetrating the black glaze except in the case of a deeply scratched line on the flank of the sphinx, are used for all interior markings.

¹ Height, 0.129 m. Briefly described in the *Twenty-second Annual Report of the Boston Museum of Fine Arts*, 1897, p. 30; *Archäologischer Anzeiger*, 1898, p. 141.

² *Archäologische Beiträge*, pp. 115 ff.

³ *Galerie Heroischer Bildwerke*, pp. 18 ff. ⁴ *J.H.S.* VIII, 1887, pp. 320 ff.

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The design (Fig. 1) shows Oedipus (inscribed) nude, with a fillet in his hair, the body seen from the front and head turned towards the right, stretching out his left hand to stay the oncoming sphinx, while with the right he raises his club to strike. The sphinx stands on somewhat higher ground than Oedipus, with left forepaw raised, and behind her Mount

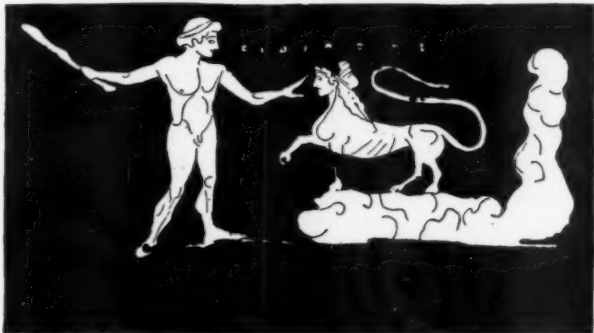


FIGURE 1. — OEDIPUS AND THE SPHINX.
(Leecythus in Boston.)

Phikion is indicated by a sharply rising tower of rock. She is wingless, and her hair falls in long strands from beneath a cap. Her tail, of disproportionate length, is curved over her back.

It must be taken for granted, in order to explain the defensive attitude of Oedipus, that the vase-painter intended to depict the sphinx as actually attacking, although in reality she seems to stand somewhat placidly in front of her antagonist. This same lack of realism in indicating the hostile nature of the sphinx can be seen on other monuments.¹ Indeed, the whole treatment of the sphinx legend in Greek art, as it has come down to us on vase paintings, shows a conception strikingly at variance with that of the poets, who everywhere dwell upon her horrible and portentous nature. To Euripides she is the οὔρειον τέρας,² and Sophocles speaks of Oedipus as κατὰ μὲν φθίσας τὰν γναμψώνυχχα παρθένον χρησιμφδόν.³ The imagination of the vase-painters, on the other hand, seems to have

¹ Cf. Overbeck, *Gall. Her. Bildw.* pls. 1 and 2.

² Eur. *Phoen.* 806.

³ Soph. *Oed. R.* 1198 ff.

been dominated by the widespread popular conception of the sphinx as one of the numerous demons of death, most frequently appearing in the shape of a hybrid with a woman's head of peculiarly austere and elevated beauty, whose marble effigy crowned so many sepulchral monuments. That our vase-painter, however, intended rather to emphasize the bestial nature of the sphinx is, I think, shown by the fact that he depicted her without wings. For this there exists, so far as I know, no parallel among Greek vase paintings, although some examples can be cited from monumental art: a marble sphinx, probably created under Egyptian influence, on the sacred way at Miletus,¹ and a small archaic crouching sphinx² of terra-cotta, which seems, from the fact that it was found at Thebes, to connect the wingless type with the Oedipus myth. In extant Greek literature there is no definite mention of a wingless sphinx. Hesiod,³ the scholiast to Euripides' *Phoenissae*,⁴ and Aeschylus in his brief description of the shield of Parthenopaeus,⁵ do not, it is true, mention the wings in describing the sphinx, but it is far more probable that they simply did not dwell upon a feature which the imagination of every hearer was able to supply, than that they meant to imply that it was wanting. It is possible, though merely a matter of conjecture, that in a passage quoted from Corinna by the scholiast to Euripides,⁶ in which the sphinx is classed with the Teumessian fox as a ravening beast destroyed by Oedipus, some such wingless monster may have been meant. The type of sphinx on our vase must therefore be derived from popular tradition, and this is made the more probable by the very humble nature of the vase itself. Possibly it was originally, like so many of the diminutive lecythi, the plaything of a child, who saw in it the illustration of some well-known nursery tale.

Setting aside the fact that the sphinx is wingless, we can fit

¹ Newton, *Travels and Discoveries in the Levant*, II, p. 155.

² Milchhöfer, *Ath. Mitt.* IV, 1879, p. 54, "Rundfigürchen einer liegenden Sphinx aus Thon . . . flügellos, gestreckt, am Hinterhaupt und Halse eine mähenartige Erhebung. Die Gesichtsbildung ist ganz in der andeutenden Art ältester Thonidole Griechenlands gehalten.

³ *Theog.* 326.

⁴ Schol. Eur. *Phoen.* 1700.

⁵ *Septem.* 541.

⁶ Schol. Eur. *Phoen.* 28, ἀμείβειν δὲ αὐτὸν οὐ μόνον τὴν Σφίγγα ἀλλὰ καὶ τὴν Τευμησίαν δλώσκει.

our vase into a small but definite class, in which Oedipus slays the sphinx in combat, and see in it a divergent form of the myth, probably unconnected with the guessing of the riddle.¹ Jahn² maintained that all such scenes of conflict must be interpreted as taking place between the sphinx and one of the unfortunate Theban youths, while Overbeck³ identified the youth as Oedipus in all cases in which the sphinx appeared to be suffering defeat. The inscription on our vase now brings definite evidence in support of Overbeck, and we can group together the following monuments as in all probability depicting a combat between Oedipus and the sphinx:—

- (1) Late black-figured bowl, Berlin 2068.
- (2) Red-figured fragment, De Witte, *Catalogue Durand*, 366; Overbeck, *Gall. Her. Bildw.* p. 28, No. 24.
- (3) Red-figured aryballus, late fine style, British Museum, E 696; Murray, *J.H.S.* VIII, 1887, pp. 320 ff. pl. LXXXI.
- (4) Paste gem, Tassie-Raspe, *Cat. of Gems*, p. 506, No. 8597; Overbeck, *op. cit.* pl. 23, No. 18.
- (5) Gem, Millin, *Pierres Gravées Inéd.* and *Mon. Inéd.* II, 38; Overbeck, *op. cit.* p. 24, No. 23, pl. I, 9.

Murray, in describing the aryballus in the British Museum, tries to show by a curious line of reasoning that the sphinx, in despair over the guessing of her riddle, has already fallen from an elevation, and now, half dead, is offering herself a complacent and willing victim to the spear of Oedipus. If that be the case, it is difficult to understand why Oedipus grasps the column and reaches out so mightily with his spear. He has none of the appearance of a man obligingly assisting at an act of suicide. But Murray says, "Oedipus has his foot planted on her head. He could not have gone so far had the sphinx been capable of resistance. He must then have by a previous blow rendered her unresisting, which would leave him now in an undignified position(!). Or we must revert to the theory that she had fallen from a height and broken her neck, in which case he would be entitled to come forward to dispatch her." Alas for Oedipus! It is to be feared that in combating the

¹ The literary evidence for this form of the myth is concisely stated in Roscher's *Ausführliches Lexikon*, III, pp. 715 ff.

² *Archäologische Beiträge*, pp. 115 ff.

³ *Gall. Her. Bildw.* pp. 18 ff.

sphinx he must stand convicted of having fought according to the laws of self-preservation and not of a punctilious and well-regulated duel, and if that be so, Murray's theory falls to the ground.

Before leaving the discussion of this vase, I wish to revert once more to the technique — the superimposing of white color over red — for which I can find no exact parallel. It seems to represent one of those experiments in the use of colors that the vase-painters tried upon their smaller and less valuable wares, and of which the Boston Museum possesses several other examples.¹ The use of white alone on black glaze is of frequent occurrence. Six² has collected seventy examples, including one signed by the painter Nikosthenes. All these have the characteristics of the black-figured style. Other vases have been found with designs in red on the black glaze,³ clearly made in imitation of the red-figured technique, which, according to style and because fragments of the kind were found in the pre-Persian stratum of the Acropolis,⁴ must be dated around 480 B.C.

Although our lecythus has many of the features of the severe red-figured style, such as the incorrect drawing of the eye in profile, the short, thick-set figure, and the archaic character of the long, upward curving fingers of the left hand, it shows such unusual ability in rendering the twist of the right leg and the foreshortening of the foot — a position as a rule not correctly drawn until the period following that of the cylix-painters,⁵ — that we are forced to date it somewhat later than the other examples of mixed technique, and place it somewhere in the second quarter of the fifth century, accounting for the apparent archaisms as survivals in the work of a careless vase-painter.

The second vase I wish to discuss is a Nolan amphora⁶ of the early fine style. Graceful as it is in shape, it cannot vie in absolute technical perfection with others of the so-called "Nolan" group, but it is in the beauty and refined art of the representation of the legend of Oedipus guessing the riddle of

¹ *Annual Report of the Boston Museum of Fine Arts*, 1900, p. 72, No. 30; 1898, p. 74, No. 52.

² *Gazette Archéologique*, 1888, pp. 103 ff., 281 ff.

³ Berlin, 4029.

⁴ Six, *Gaz. Arch.* p. 290.

⁵ Winter, *Die jüngeren attischen Vasen*, Berlin, 1885.

⁶ Height, 0.322 m.; diameter, 0.167 m. *Annual Report*, 1906, p. 59, No. 3.

the sphinx that the significance of the vase lies. It seems to have suffered in the furnace, both from contact with other vases, to which must be attributed the two dents on either side of the body and the uneven moulding of the lip, and from exposure to excessive heat, which caused the somewhat greenish color of the glaze on the foot and part of the body. Otherwise the glaze has the rich and lustrous quality characteristic of this



FIGURE 2.—OEDIPUS AND THE SPHINX.
(Nolan amphora in Boston.)

class. In shape the vase conforms entirely to the "Nolan" type. The handles have a raised angular ridge in the middle.

The main representation—on a ground-line of meander interrupted by obliquely crossed squares—shows us the sphinx crouching upon a short, fluted Doric column (Fig. 2). Her large wings are raised above her head, and a red fillet binds her short curly hair. The face seems to combine with an exquisite delicacy of feature an impression of largeness and a solemnity admirably reflected in

the pose and expression of Oedipus. He has come upon the sphinx unawares, according to the version of Sophocles,¹ and surprise and a certain alarm, as he waits for the words of the fatal riddle, are depicted in his features. His head is inclined slightly forward in an attitude of concentrated attention, and the gaze of the wide-open eye, the parted lips, and the admirably expressive gesture of the right hand, add to the atmosphere of suspense that seems to pervade the picture. Oedipus grasps a spear in his left hand. At his side hangs a sword. He wears the traveller's chlamys over a short chiton—drawn in thin red glaze—and his petasos, tied about the neck with red strings, hangs behind. His short, closely cropped hair is bound by a red fillet.

Too much emphasis cannot be laid upon the peculiar intensity with which the vase-painter has here succeeded in portraying the psychological moment; for while there are a number of other vases on which the composition is almost identical, none, to my knowledge, shows such unity of feeling. The artist has attained his effect by the very simplest means. A single horizontal line on the forehead of the sphinx, the somewhat narrowed eye, and a slight droop and heaviness of the lower lip seem to give her an expression of brooding solemnity. The means by which the alarm and suspense of Oedipus are portrayed have already been indicated.

As the types of Oedipus and the sphinx vary so little during the whole history of vase-painting, it may be of interest to compare a few characteristic vases of different periods, and see what development there was within the same composition, in the power of depicting a definite emotion. The two earliest examples known to me are a fragment from Daphnae,² and a black-figured lecythus.³ Here the sphinx has not yet the monumental character of later representations on vases, and is shown either walking or sitting on the ground. The lecythus is too rude in design to merit discussion, but the painter of the Tanis fragment evidently grappled seriously with the problem of depicting a moment of tragic concentration. Oedipus, bearded, with furrowed brow, and wrapped mysteriously in a

¹ *Oed. R.* 37. ² British Museum, B 122; published, *Tanis*, II, pl. XXXI, 1.

³ Stackelberg, *Gräber der Hellenen*, pl. XVI.

long chiton and cloak, stands in front of a large sphinx, whose features are not devoid of a certain unconscious archaic cheerfulness. Here the artist, probably through inability to deal with the sphinx, struggled to give the proper feeling to the group by an expression of exaggerated, almost ludicrous solemnity on the face of Oedipus.

The period of the severe red-figured style offers no important example of the Oedipus type, but from the time of the cylix-painters we have the well-known cylix of the Vatican.¹ Oedipus, a bearded man, wearing chlamys, petasos, and high boots, is seated on a rock in an attitude of easy attention, and looks up at the sphinx, who crouches on an Ionic column. Her eyes are downcast, and the words of the riddle fall from her lips. This picture has not yet attained to the refined and subtle spirit of our Nolan amphora. The melancholy lowering of the eyelids of the sphinx introduces a note of exaggeration, while the interest of the whole is narrative rather than psychological. No definite moment is chosen for representation, and Oedipus, while listening to the propounding of the riddle, seems in his easy and care-free carriage to anticipate his final triumph.

Among the vases dating from about the same period as our Nolan amphora, one formerly in the Hamilton collection² has much of the noble simplicity, but none of the emotional intensity of the former. A "Nolan" amphora with twisted handles, unfortunately known at the present moment only through a drawing,³ approaches nearest to our vase in feeling. Technically the two vases have much in common, especially in the treatment of the wing feathers and the drawing of the extremities, and are probably the product of the same factory, if not of the same artist.

The reverse of our vase shows a carelessly executed figure of a youth, wrapped in a himation which leaves the right shoulder bare. He carries a staff in the right hand, and stands upon a ground line of meander pattern.

HETTY GOLDMAN.

¹ Helbig, *Führer No. 1274*; published, *Museo Greg.* II, pl. LXXX; Overbeck, *Gall. Her. Bildw.* p. 34, pl. I, 12; Hartwig, *Die gr. Meisterschalen*, p. 684, pl. 73, etc.

² Overbeck, *Gall. Her. Bildw.* pl. I, 16.

³ *Vasi Dipinti del Museo Vicenzio*, Roma-Napoli, MCM.

American School
of Classical Studies
in Rome

PRIVERNUM

III. ROMAN REMAINS IN THE TERRITORY OF THE ROMAN
COLONY

IN the article which dealt with the Volscian remains in the territory of Privernum, I pointed out that nearly all the "polygonal" walls in this region probably belong to the Roman period.¹ As the "polygonal" walls were fully described in that article, I shall not discuss them further, but I shall confine myself, in this last article of the series, to an account of the remains not previously described, the Roman origin of which is beyond question.

These remains, for the most part, mark the sites of villas which were built between the time of Sulla and the end of the first century A.D.; in two places, S. Davino and S. Eramo, there are also ruins of tombs, and on Monte S. Angelo are the walls of a temple, all of which were built during the same period. Occasionally we find later Roman buildings, or signs that a villa was occupied in mediaeval times.

These ruins of Roman buildings are found in all parts of the territory which I explored. I shall begin with the sites farthest to the north, in the hills and mountains to the north of the plain of the Amaseno, then discuss those in the plain itself, and conclude with a description of the important remains on the hills between the plain and the Pontine Marshes, and on the borders of the Marshes themselves.

Below the great terrace walls of Mura Saratte (Fig. 1, 1) are traces of a large Roman reservoir of concrete which extends along the hillside. Although it has been destroyed to the level of its floor and is partially covered with earth, the length of the eastern side, 27.30 m., can be ascertained, and the northern and southern ends can be traced for 7.70 m. and 11 m. respec-

¹ Above, p. 56.

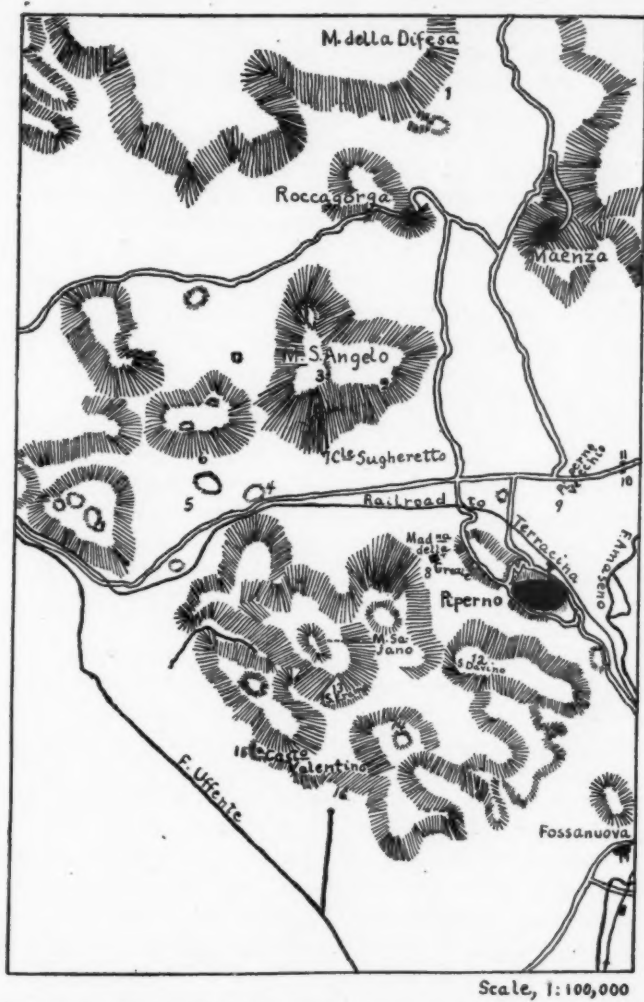


FIGURE 1.—MAP OF PIPERNO AND VICINITY, SHOWING ROMAN REMAINS.
(Adapted from the Government Staff Map, Foglio 159.)

tively, to the points where the earth hides them. A notable feature of the construction, which we shall see later at S. Davino, is the use of buttresses of concrete to strengthen the outside of the end walls. This site was inhabited in mediaeval times also.

There are remains of another Roman villa on the terrace walls of Li Cattivi (Fig. 1, 2). One wall of concrete faced with a coarse *opus incertum* of limestone starts at a point 19.50 m. from the beginning of the second terrace wall and extends outward at right angles to it for 1.20 m. Another wall faced with finer *opus incertum* (which I shall call *a*) follows the entire course of the terrace wall which is farthest up the hill, except for 2 m. at its southern end. A wall similarly faced (which I shall call *b*), 2.50 m. in length, forms a right angle with the southern end of *a*. In the angle made by *a* and *b* is a concrete foundation which can be traced for at least 6.60 m. out from the hill; on this there are remains of a well-laid pavement of *opus spicatum*. At a distance of 3.20 m. to the north of what appears to be the southeastern corner of the concrete foundation, is a bit of another wall like *a* and *b*, which runs parallel to *b*; and to the south of the concrete platform is a small reservoir which measures 2.30 m. by 1.85 m. Finally, at the northern end of *a* is a room in the hillside, with inner dimensions of 3.15 m. by 3.70 m., the walls of which are faced with *opus incertum*. All these walls have the same orientation, and they all belong to the late Republican period, with the exception of the reservoir, which is of the late Roman or mediaeval period.

The highest point of Monte S. Angelo is occupied by the ruins of a monastery that was abandoned many years ago by the monks from whom this region received the name Li Cattivi (Fig. 1, 3). These monks incorporated in the side walls of their church two ancient walls of concrete, faced with the finest *opus incertum* of limestone which I have seen. The southern wall now stands less than 0.60 m. above the ground; its course can be traced for 10.10 m. The northern wall is 4.20 m. distant; its greatest height is 2.70 m., and its length is 8.60 m. The western ends of both walls, which are directly opposite each other, have a facing of small squared stones.

This building must have been erected at a time when Sulla founded the colony of Privernum. It certainly was not a villa,

for the site is totally unfitted for a dwelling. On the other hand, since it is located in an isolated position on a mountain top, and since it was turned into a church at an early period, I believe that this was some important shrine or temple. It is impossible to say to what divinity it was dedicated.

Most of the sites of the Roman villas which I found in the plain of the Amaseno are to the west of the Roman town of Privernum at Piperno Vecchio. Two of these villas (Fig. 1, 4, 5) I have seen only from a distance, so that I cannot give any description of the remains. On one site, according to Director Thomas Ashby, of the British School in Rome, only a reservoir is left (Fig. 1, 5); on the other site (Fig. 1, 4) are extensive remains, which, to judge from a brief notice in the *Notizie degli Scavi*,¹ must date from the second century A.D.

The same article in the *Notizie degli Scavi* states that Roman remains of various kinds were discovered all over the surface of the platform at Ceriara (Fig. 1, 6), when it was excavated in 1893.² When I visited the spot in April, 1910, the only trace of Roman remains which I found was a mosaic pavement on the southeastern corner of the terrace. It has a pattern of hexagons, diamonds, and squares, outlined in black on a white ground; the fine, thin tesserae and the good quality of the workmanship indicate that it was laid during the last years of the Republic, or in the Augustan Age.

There was another Roman villa 2 km. to the east of Ceriara at the foot of the Colle Sugheretto (Fig. 1, 7). Only the ruins of a reservoir of concrete, 10.60 m. in length and 4.50 m. in width, are left; adjoining them on either side are traces of other reservoirs.

The very scanty Roman remains on the terrace at the Madonna delle Grazie (Fig. 1, 8) apparently belong to another villa. A battered mass of *opus signinum*, perhaps the floor of a reservoir, and a bit of wall made of concrete faced with *opus incertum*, are all that can be identified.³

¹ 1899, p. 92.

² *I.c.*

³ For the sake of completeness, I mention two fragments of concrete, faced with *opus reticulatum*, which are near Piperno Vecchio, about 50 m. to the west of the field road which connects Piperno Vecchio with Piperno (Fig. 1, 9). These probably belong to some villa or private building, as they lie outside of the limits of the Roman town.

There are no ruins of importance to the east of the Roman town. In the Rione S. Salvatore, about 200 m. to the south of the Ponte del Carciofo (Fig. 1, 11), a good-sized reservoir stands by itself in the fields (Fig. 1, 10, Fig. 2).¹ Its outer dimensions are 12.80 m. by 8.40 m.; its inner dimensions, 7.50 m. by 3.90 m. The walls are preserved to a height of 3 m.; they are made of concrete, faced (on the outside) with *opus reticulatum* of limestone varied with bands of brick, and,

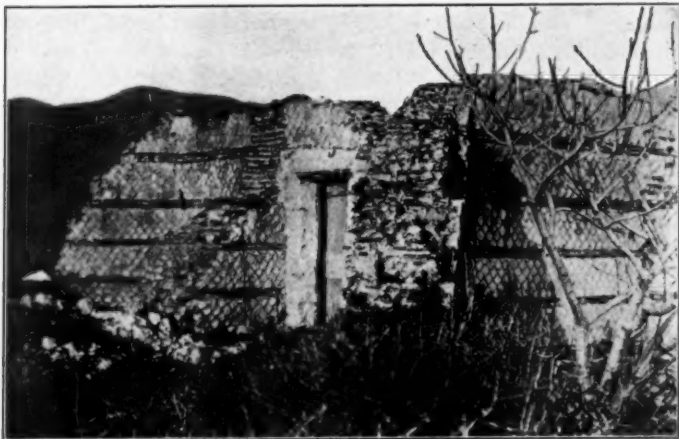


FIGURE 2. — RESERVOIR AT S. SALVATORE.

on the inside, with brick. The outside is strengthened by buttresses, the arrangement of which can be seen in Figure 2. Between the buttress at the northeastern corner and the one to the south of it, a round basin of concrete, connected with the reservoir by an opening, is set in the ground; above it the space between the two buttresses was arched over, so as to form a kind of second story. The brickwork of this reservoir is so poor that I hesitate to assign it to a period earlier than the fourth century. A smaller reservoir of like construction at S. Eramo (see p. 398) is certainly of a late date, as its level is above that of a mosaic pavement which dates from the third

¹ The photographs from which Figures 2 and 5-10 were made were taken by Mr. J. H. Ten Eyck Burr.

century A.D. or a later period. Of course, this site at S. Salvatore may have been occupied by a villa long before the reservoir was built, as was certainly the case at S. Eramo.

Somewhat over 2 km. to the northeast of Piperno Vecchio, in the Contrada Spadelle, I saw a fragment of another reservoir; probably there was another villa here.

The only other point of interest that I have noticed in the plain of the Amaseno is near the new electric plant, at a distance of over 2 km. to the east of Piperno Vecchio. Here a number of paving blocks are lying on the ground, while near by are other stones and bits of tiles, and some mediaeval walls. We seem to have here another section of the ancient road that passed through the Roman colony at Piperno Vecchio.¹ In that case, it is strange that no other traces of the road are visible between Piperno Vecchio and this point, except for a few scattered blocks at the Ponte del Carciofo (Fig. 1, 11) and in the cuttings of the modern road to the east of that bridge, which are not necessarily *in situ*.

I have found the ruins of three villas on the hills between the plain and the Pontine Marshes; two of them, situated respectively at S. Davino and S. Eramo, are of some importance.

The top of the hill of S. Davino is a plateau of more than 300 m. in length (Fig. 1, 12). Toward its southern end are the remains of a circular building 6 m. in diameter. Only the first course of the structure is left; it was composed of seventeen blocks of limestone, of which sixteen are still *in situ*. The blocks, which vary considerably in length and in

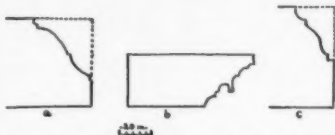


FIGURE 3.—PROFILES OF MOULDINGS FROM S. DAVINO (a, b) AND S. ERAMO (c).

thickness, have a heavy moulding on the outside (Fig. 3, a), but are left quite rough on the inside. The holes for the clamps which connected the blocks are still visible; five blocks have also slight depressions in their upper surface to receive the blocks of the course above. The only other trace of the original structure is a cornice block (Fig. 3, b), which lies partially buried in the ground near by. To judge from the architectural details, this

¹ Above, p. 179.

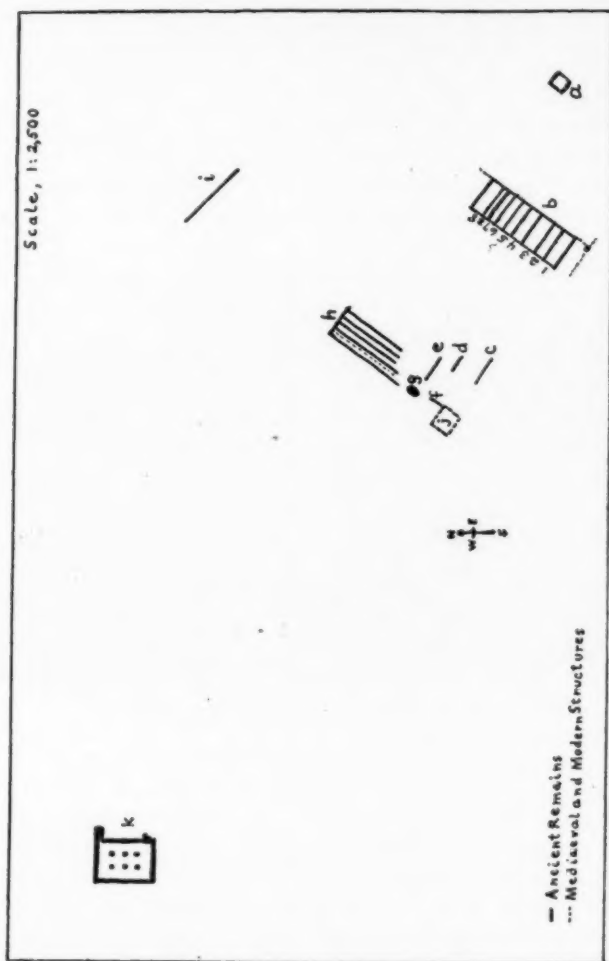


FIGURE 4.—PLAN OF REMAINS OF VILLA AT S. ERAMO.

building was erected at the same time as the "colony arch,"¹ or a little later, that is, between the time of Sulla and the Augustan Age. From its form it might be either a shrine or a tomb; it is probably the tomb of the owner of the villa.

¹ Above, pp. 175-176.

Of the structures which compose the villa proper, only a reservoir is left. It stands entirely above ground; one chamber and the spring of the arch of another are preserved. The outer dimensions of the reservoir are 13.40 m. by 7.80 m., and the inner dimensions of the chamber are 10 m. by 4.60 m. The walls, which stand to a height of 3 m. from the ground, are made of solid concrete without facing, and are strongly buttressed on the outside. Although there is no indication of the



FIGURE 5. —FRONT OF RUINED TOMB AT S. ERAMO; CHAMBER 6 OF RESERVOIR (b) IN THE BACKGROUND.

exact date of this reservoir, it is surely Roman. Two other underground reservoirs, to the north and south of this one, are mediaeval.

The ruins of the villa at S. Eramo (Fig. 1, 13; Fig. 4) are almost as extensive as all the other Roman remains taken together. The site, too, is the most magnificent in the district; to the south and west it commands a view of the Pontine Marshes, Monte Circeo, and the sea; to the north and east, of the hills and valleys toward Piperno, the town of Piperno, the plain, and the Volscian Mountains beyond.

As one ascends the hill of S. Eramo from Pozzi Reali, one

reaches first a rectangular building in ruins to the right of the path (Fig. 4, *a*; Fig. 5). It is built of huge blocks of limestone fitted together without clamps. It is 6.05 m. in width at the front, where the blocks are somewhat displaced, and 5.50 m. in width at the back; the sides measure 5.20 m. in length. The walls are standing in places to a height of four courses, or about 2.19 m.; the course above the foundation course has a moulding on its outer surface (Fig. 3, *c*). In the front an opening for a door is cut through this moulding and the course above it to a width of 0.83 m. and a height of 1.56 m.



FIGURE 6. — CHAMBERS 4-8 OF RESERVOIR (*b*) AT S. ERAMO.

The deep cutting in the lintel and the doorposts for the reception of the door itself, the holes for the pivots in the threshold and in the lintel on the northern side of the door, and the hole in the doorpost on the southern side, intended to receive a bar, are all plainly visible.

This structure may well belong to the first century A.D., if it is not of an earlier date. It may have been a small temple; but as it is too massively constructed for a temple; and as it is placed in front of the villa, as are so many of the tombs on the Via Appia, I believe that it is rather the tomb of the original owner of the villa.

Thirty-one metres to the northwest of this tomb is the north-

eastern corner of a series of reservoirs which formed a great foundation for ancient buildings that have now disappeared (Fig. 4, *b*). There were certainly eight chambers, and there may have been nine; I could not ascertain whether there was a very heavy wall between the last two chambers or another very narrow chamber. The front was originally closed by a wall of concrete faced with *opus reticulatum* of limestone, which remains in front of chambers 7 and 8; it is 40 m. in length (Fig. 6). The wall at the southern end of the series of chambers can be

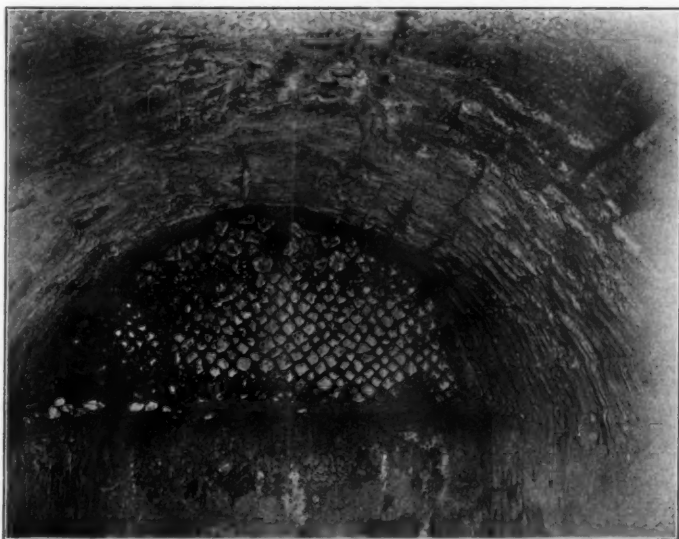


FIGURE 7.—INTERIOR OF CHAMBER 5 OF RESERVOIR (*b*), SHOWING MEDIAEVAL REPAIRS.

traced for its entire length of 12.70 m., and has a facing like that of the front wall.

In mediaeval times the reservoirs were used to support a building of which traces still exist. This extended, for at least 6 m., to the north of the line of ancient reservoirs, and for 7 m. to the south, where it ended in a corner which still stands to an imposing height.

In the interior of the reservoirs the side walls, up to the

spring of the vault, and the end walls are faced with a very irregular *opus reticulatum*; the concrete of the vault, of course, had no facing (see Fig. 7). The original coating of *opus signinum* is preserved only at the back of chambers 6 and 7. In mediaeval times the end walls of several chambers were repaired at the top, where openings had been made, and new linings were put into chambers 5 and 8 (see Fig. 7).

The interior dimensions of the chambers vary. The length of all that could be entered is the same, about 11.05 m. Chambers 1 and 2 are of the same width, 4.20 m.; 4 m. from the rear of 1, and 2.30 m. from the rear of 2, are traces of a cross-wall. Chamber 3 is in too bad a condition to examine, and chamber 4 is so filled up that only its length and its width (3.60 m.) can be ascertained. Chamber 5 has a width of 3.70 m.; the lining which was added in mediaeval times forms a ledge of 0.50 m. in width on three sides (see Fig. 7). Between 5 and 6, and also between 6 and 7 and 7 and 8, there was an arched opening through the side wall, near the front of the chambers; that between 5 and 6 was later blocked up with a rough brick wall. Chamber 6 has practically the same dimensions as 5. Chamber 7 has a width of only 2.05 m. In this chamber it is possible to measure the full height; this is 3.90 m., of which the distance to the spring of the arch, 2.20 m., is coated with *opus signinum*. The interior of chamber 8 can be seen, but I could not enter it.

The facing of *opus reticulatum* gives us a clue to the date of these reservoirs. As it is still coarse and rather irregular and has no bands or corners of brick, it can hardly be later than the first century A.D., and I judge that the tomb and the reservoirs were built at about the same time.

Of the same period are fragments of four walls (Fig. 4, *c, d, e, f*), the nearest of which is 42 m. away from the northwestern corner of the reservoirs. The length of wall *c* is 10.50 m. Wall *d*, which is 11.60 m. distant from wall *c*, can be traced beneath a modern wall for 6.50 m. Wall *e*, which is 5.70 m. to the north of wall *d*, is visible for 9.80 m. (see Fig. 8). Wall *f*, which is 13.60 m. from wall *d*, can be followed for 4.70 m., until it is intercepted by the corner of the modern house. These walls apparently separated various rooms of the villa.

I found a portion of the mosaic pavement of another room at the point marked *g* in Figure 4 (see also Fig. 8, where the position of the mosaic is marked by the cross). This mosaic is much later than the other remains, as its coarse, thick tesserae of limestone, poorly laid, show that it is not earlier than the third century A.D.

A depression about 5 m. to the northeast of this mosaic seems to indicate an opening into an underground reservoir; and, in



FIGURE 8. — S. ERAMO.

(Wall (c) beside the standing figure, modern house built over mediaeval reservoir at the extreme right: the position of the mosaic is marked by the X.)

fact, if we follow for 28 m. a line of mediaeval wall that begins 5 m. beyond this depression, we find the remains of a series of four reservoirs, with the beginning of a fifth, which have a total width of 12 m. (Fig. 4, *h*).¹ All these reservoirs are now filled up, and none of the facing of the walls is to be seen, but

¹ The dimensions assigned in Figure 4 to all of these reservoirs, except that which is farthest to the northwest, are largely conjectural, because exact measurements could not be taken.

their orientation seems to show that they were part of the same plan as the other series of reservoirs.

Another wall faced with *opus reticulatum* of limestone completes this group; it lies at a distance of 70 m. down the hill, and can be traced for about 29 m. to the southeast (Fig. 4, i). It seems to have been a lower terrace wall.

This part of the villa was also built over in mediaeval times. Besides the mediaeval wall just mentioned, there is a mediaeval

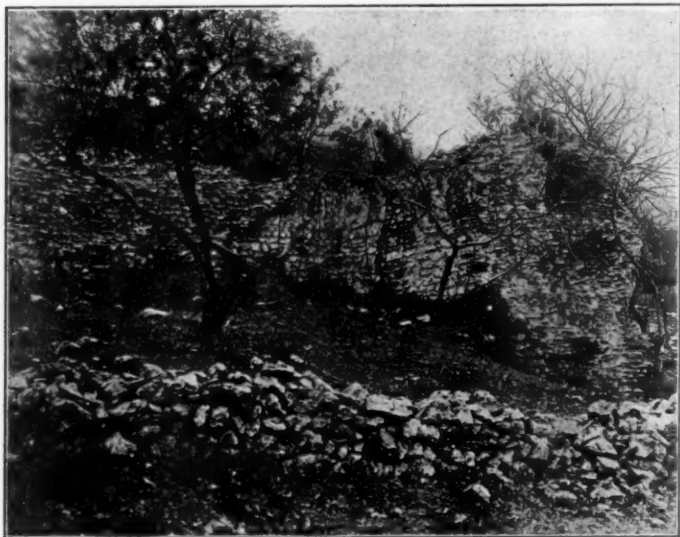


FIGURE 9.—PORTION OF EXTERIOR OF LARGE RESERVOIR AT S. ERAMO.

reservoir, like that of S. Salvatore in outward appearance, on which the modern house is built (Fig. 4, j). It is 8 m. in length and 7.50 m. in width. I could not get into the interior, which is now used as a sty.

The most remarkable ruin at S. Eramo stands about 200 m. farther up the hillside, just beneath the first steep slope of Monte Sajano. This is a huge reservoir of a type not found elsewhere in this vicinity (Fig. 4, k).

The exterior (Fig. 9) is far from imposing, as it projects only a short distance above the ground. Its length from north

to south is about 23.50 m.; the width is difficult to measure, but on the north side, where a small chamber projects outward, it is about 21.50 m. The outer facing of the reservoir is so battered that its original appearance cannot be determined.

The small chamber is connected with the main chamber by a single tiled opening in its roof. The interior measures 3.15 m.



FIGURE 10. — INTERIOR OF LARGE RESERVOIR AT S. ERAMO.

in length, 1.12 m. in width, and 4.80 m. in height. The walls under the *opus signinum* have a facing quite different from any other which I have previously described; it is composed of tri-

angular bricks with a strip of *opus reticulatum* of yellow tufa at the bottom of the wall. Adjoining this chamber were two other little chambers; these had a facing of *opus reticulatum* of limestone, with bands and corners of brick, as shown in Figure 9. At the southern end of the large chamber there are traces of another small chamber; here the corners are not of brick, but of small blocks of limestone.

The spacious interior of the main chamber (Fig. 10) has a length of 20.50 m., a width of 15.25 m., and a height of about 6.50 m. The roof is supported by six square piers in two rows; the piers measure 1.50 m. by 1.35 m., and the rows are at a distance of 4 m. to 4.10 m. from one another and from the four walls. The side walls of the chamber, under their coating of *opus signinum*, have a facing of *opus reticulatum* of yellow tufa, which must have been imported from the vicinity of Rome, with bands and corners of brick; the piers are faced entirely with brick. The style of this facing enables us to assign the reservoir to the end of the first century A.D. or to the early part of the second century A.D.

The architectural history of this villa, as we have seen, covers a considerable period. The tomb of the owner (Fig. 4, *a*) and the main group of buildings (Fig. 4, *b-i*) seem to have been built in the early part of the first century A.D.; as the locality was very deficient in water, an unusually large number of reservoirs was provided for the storage of rainwater. Even these facilities soon proved to be inadequate, and in less than a century the great reservoir (Fig. 4, *k*) was added which gave a certain amount of pressure because of its elevated position. The villa thereafter was kept in repair, as the mosaic pavement (Fig. 4, *g*) shows; and in mediaeval times an important castle stood here, to judge from the extensive repairs made to the old reservoirs and the construction of a new one (Fig. 4, *j*).

A local tradition, at least three centuries old, calls this the villa of Sejanus,¹ and in accordance with this tradition the mountain above it has been named Monte Sajano. Practically all the writers on Privernum have accepted this tradition as a

¹ See the quotation from an oration of Favonio Leo, delivered in 1620, in Valle, *La regia et antica Piperno, città nobilissima di Volsci nel Latio* (Naples, 1637), p. 30.

fact; the latest authority to do so is Frothingham, who quotes the shepherd's song, which is still heard in this vicinity, as evidence.¹ But there is no statement in the ancient authors that Sejanus had a villa here, and the remains themselves do not give us any conclusive proofs that he built the villa. Until further evidence is forthcoming, therefore, we must question the authenticity of the tradition, attractive though it may be.

The other villa which I have found in these hills is situated near Campo del Pozzo, on the slope which faces S. Davino (Fig. 1, 14). There remains a reservoir of two chambers joined end to end, with the spring of the vault of other parallel chambers. The length of the entire reservoir is 31.50 m., and the outer width, 4.70 m. The western chamber can be entered; it is 14.80 m. in length, and 4.20 m. in breadth. All traces of the facing have disappeared, leaving only the concrete walls. Thirty metres down the hill are other pieces of concrete which may belong to a foundation.

Along the Pontine Marshes I have seen only one place in the territory of Privernum where there are walls that are surely Roman.² In the walls of a little bakery opposite the famous church of Fossanuova (Fig. 1, 17) is incorporated a part of a Roman nymphaeum or some other ornamental structure. I omit a detailed description of it, but give instead a plan drawn to scale (Fig. 11).³ Outside of the bakery are other walls and one end of a reservoir, as indicated in the plan. The inner facing of the nymphaeum has something of a decorative character, as it is composed of *opus reticulatum* laid in alternating rows of light-colored limestone and the dark-colored stone which resembles *sperone*; ⁴ there are also bands and

¹ *Roman Cities in Italy and Dalmatia* (New York, 1910), p. 73. The song is: "Marciano, Marciano, Tutte le pecore son' di Sejano."

² Of course, many of the walls described in my previous article as existing at Castello Valentino (Fig. 1, 15), and elsewhere along the Marshes, may belong to the Roman period (see above, p. 56); and the walls and reservoirs which I have called mediaeval at Castello Valentino may date from late Roman times. Above the spring of Gracilli (Fig. 1, 16), too, I saw a piece of concrete, which might be Roman, lying on the hillside.

³ On this plan the dotted lines indicate places where the ancient wall has been replaced by modern masonry; the shading is used where the thickness of the walls can be determined.

⁴ I have seen at Terracina a wall of *opus reticulatum*, similarly laid with

corners of brick. The outer facing of most of the walls of the nymphaeum is of *opus reticulatum* of limestone only, with the usual corners of brick; the inside of the reservoir is faced with brick. This style of construction, like that of the great reservoir at S. Eramo, cannot be earlier than the end of the first century A.D., or the early part of the second century A.D.¹

About 3 km. to the south of Fossanuova, in the Rione la Ficuccia, are the remains of another villa which I have not

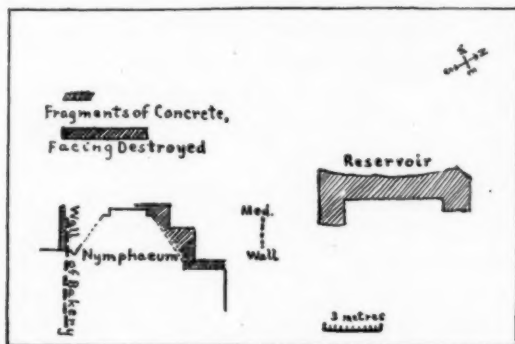


FIGURE 11.—PLAN OF REMAINS AT FOSSANUOVA.

visited. A trial excavation was made here by the Italian government in the spring of 1910, but it was not continued long, as it is said that nothing but a reservoir was found. The government inspector at Piperno, Signor Jannicola, has a number of tesserae of colored and gilt mosaic from this spot; these, however, belong to a building of the mediaeval period. Farther to the south and east, along the railway, there are still other Roman villas;² but these are outside of the territory of Privernum.

HENRY H. ARMSTRONG.

PRINCETON, NEW JERSEY,
March 29, 1911.

alternate courses of limestone and tufa, in some shops excavated in 1910, opposite the Albergo Reale.

¹ Paccasassi, *Monografia del Monumento Nazionale di Fossanova presso Piperno* (Fermo, 1882), p. 2, says there was a villa of Septimius Severus at Fossanuova!

² Cf. the discovery noted in *Not. Scav.* 1910, p. 293.

ARCHAEOLOGICAL NEWS¹

NOTES ON RECENT EXCAVATIONS AND DISCOVERIES; OTHER NEWS

WILLIAM N. BATES, *Editor*

220, St. Mark's Square, Philadelphia, Pa.

GENERAL AND MISCELLANEOUS

BENTIA.—*Arabic Inscriptions.*—In *C. R. Acad. Insc.* 1911, pp. 198–206 (map; 2 figs.), G. DE GIRONCOURT reports that he has found on the left bank of the Niger, between Gao and Mamey, opposite the island of Bentia, a cemetery of considerable size. Above the different graves are rectangular slabs or “tables,” of which about one-third have Arabic inscriptions on the east side. One already deciphered is dated June 9, 1397, and another, February 17, 1419. These inscriptions are important for the history of the Mussulman settlement of the region.

NECROLOGY.—*Paul du Chatellier.*—At the château of Kernuz, March 26, 1911, Paul de Chatellier, a distinguished representative of Armorican archaeology and president of the Archaeological Society of Finistère, died in his 78th year. (*S. R., R. Arch.* XVII, 1911, p. 439 f.; portrait.)

Camille de la Croix.—The Rev. Camille de la Croix, S. J., a distinguished scholar in the field of Merovingian and mediaeval French (and Belgian) archaeology, died April 12, 1911, at Poitiers. He was born near Tournai in 1831. (*S. R., R. Arch.* XVII, 1911, p. 439 f.; portrait.)

Herbert Fletcher De Cou.—On March 11, 1911, Herbert Fletcher De Cou was shot and instantly killed by Arabs at Cyrene. He was born June 10, 1868, at Good Harbor, Michigan, graduated at the University of Michigan in 1889, and since 1890 had spent most of his time at the Schools of Classical Studies at Athens and Rome. He took part in the

¹ The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor BATES, Editor-in-charge, assisted by Professor C. N. BROWN, Miss MARY H. BUCKINGHAM, Mr. L. D. CASKEY, Miss EDITH H. HALL, Professor HAROLD R. HASTINGS, Professor ELMER T. MERRILL, Professor FRANK G. MOORE, Professor CHARLES R. MOREY, Dr. JAMES M. PATON, Professor LEWIS B. PATON, Professor A. S. PEASE, Professor S. B. PLATNER, Dr. N. P. VLACHOS, and the Editors, especially Professor MARQUAND.

No attempt is made to include in this number of the JOURNAL material published after July 1, 1911.

For an explanation of the abbreviations, see pp. 128, 129.

excavation of the Argive Heraeum and wrote the chapter on the bronzes found there. Early in the winter of 1910-11 he went to Cyrene with Richard Norton and J. C. Hoppin to carry on excavations for the Archaeological Institute of America. On the morning of his death he was walking to the acropolis, followed at some distance by the laborers, when three Arabs hiding behind a wall shot him and then rode away. An extended notice of him appears in the *Bulletin* of the Archaeological Institute.

Cornel von Fabriczy.—Cornel von Fabriczy died on the 5th of October, 1910. Born September 3, 1839, at Leutschau in Hungary, he studied architecture and engineering in Vienna, Karlsruhe, and Zurich from 1858 to 1863. From 1864 to 1876 he was occupied in railroad building. Leaving this occupation on account of ill health, he spent five years studying the monuments of Italy, France, and England, finally settling in Stuttgart. He was a frequent contributor to the *Zeitschrift für bildende Kunst*, the *Repertorium für Kunstwissenschaft*, the *Jahrbuch der K. Preuss. Kunstsammlungen*, and the *Cicerone*, as well as to foreign periodicals. His books on Italian sculpture were numerous, the best known being his monographs on the Codice Gaddiano, the Medallions of the Italian Renaissance, on Brunelleschi, and Sangallo.

R. Kekule von Stradonitz.—On March 22, 1911, Professor Reinhard Kekule von Stradonitz died in Berlin at the age of seventy-two. He was professor of archaeology in the University of Berlin and director of the archaeological museum. Among his important works are *Die Balustrade des Tempels der Athena-Nike in Athen*; *Die antiken Terracotten*; *Beschreibung der antiken Skulpturen in Berlin*; *Griechische Thonfiguren aus Tanagra*; *Die griechische Skulptur*; and numerous articles in archaeological periodicals and in the publications of learned societies. (*Nation*, April 20, 1911, p. 407; *Athen*, April 1, 1911, p. 370; H. WINNEFELD, *Jb. Preuss. Kunsts.* XXXII, 1911, No. 3, pp. i-viii; portrait.)

Ferdinand Laban.—Ferdinand Laban, librarian of the Royal Museums of Berlin, died on the 29th of December, 1910. He was born in Pressburg, February 1, 1856. At the close of his university training, which he received at Vienna, Strassburg, and Klausenburg, he came to Berlin, where he was employed in the Royal *Hausarchiv* and in the preparation of Meyer's *Allgemeines Künstlerlexikon*. After holding subordinate positions in the Kupferstichkabinett and in the University library, he succeeded Dr. von Beguelin as librarian of the Museums in 1895. At the time of his death he was editor of the *Jahrbuch der Kgl. Preuss. Kunstsammlungen* and of the *Amtliche Berichte aus den Kgl. Kunstsammlungen*.

Jules Maciet.—In *R. Arch.* XVII, 1911, pp. 329 f., is an obituary notice by A. MICHEL (from the *Journal des Débats*) of Jules Maciet, an amateur of art in the best sense of the word, a man of remarkable taste, great liberality, and genuine enthusiasm. Not long before his death, which occurred in January, 1911, he was elected president of the "Amis du Louvre."

Leopold Messerschmidt.—Leopold Messerschmidt, curator of the section of Eastern Asia in the Berlin museum, has died after a long illness. He was born in 1870 and devoted himself to the study of theology and Semitic languages. He was first appointed to the museum in 1899, and in 1909 became curator. (*Ber. Kunsts.* XXXII, 1911, col. 162.)

Otto Fuchstein.—On March 9, 1911, Otto Fuchstein, Assistant Director

of the Royal Museum in Berlin and General Secretary of the Imperial German Archaeological Institute, died of apoplexy. He was fifty-four years old. He studied archaeology at Strassburg, and his report on the tombs of the kings of Antioch to the Berlin Academy led to his being sent out to undertake further investigations. He was also sent to study the sculptures at Pergamon. He was an authority on the Hittites. Among his books are *Reisen in Kleinasien und Nordsyrien*, written in collaboration with Humann; *Pseudohethitische Kunst*; *Beschreibung der Skulpturen aus Pergamon*; and *Die Griechische Bühne*. (Athen. March 18, 1911, p. 313; *Atn. Mitt.* XXVI, No. 2.)

Emil Reich.—Dr. Emil Reich died December 11, 1911, at the age of fifty-seven. He was born at Eperjes, Hungary, March 24, 1854, and was well known as an author and lecturer on history. Among his publications were *Graeco-Roman Institutions*, an *Atlas of Ancient History*, and a *History of Civilization*. (New York *Evening Post*, December 12, 1910.)

Berthold Riehl.—Berthold Riehl died in Munich, April 5, 1911. He was born in 1858, and devoted his life from the age of eighteen to the history of Bavarian art. He was the author of the volume on Augsburg in the series of *Villes d'art célèbres*, of *Études sur l'histoire de la peinture bavarroise au XV^e siècle* (1896), of an *Histoire de la sculpture en pierre et en bois dans la Haute-Bavière jusqu'au milieu du XV^e siècle* (1902), etc.

Felix Solmsen.—Felix Solmsen, professor of Indogermanic languages at Bonn, was recently killed by a fall from a train. He was in his forty-sixth year. His wide range of knowledge and his ability as a lecturer brought him a high reputation. Among his publications are *Inscriptiones Graecae Selectae* and *Beiträge zur griechischen Wortforschung*. (Athen. June 24, 1911, p. 719.)

SALONICA.—**Three Inscriptions.**—In *Berl. Phil. W.* XXXI, 1911, cols. 597 f., P. N. PAPAGEORGIU publishes three fragmentary inscriptions recently discovered on marble slabs built into the wall of the church of St. Sophia at Salonica.

SERVIA.—**Recent Discoveries.**—In *Jh. Oest. Arch. I.* XIII, 1911, Beiblatt, cols. 197-228 (37 figs.), N. VULIĆ publishes a number of antiquities, chiefly Latin inscriptions, recently discovered in Servia. At **Praovo (Aquae)** seven Latin inscriptions; at **Brza Palanka (Egeta)** an inscribed brick stamp and an inscribed bowl; at **Kostolac (Municipium Aelium Viminacium)** twelve inscriptions, of which two are Greek and one Greek and Latin, nine sculptures, an inscribed brick, and two rings, one inscribed ΤΡΩΒΙΝΚΙ and the other ΜΝΕΜΟΝΕΥΕ; at **Belgrad (Municipium Singidunum)** three inscriptions; at **Dubravica an der Moravamündung (Municipium Aurelium Augustum Margum)** two sculptures, adding brief descriptions of three others in a private collection; at **Kuršumlija** a broken grave relief representing the busts of a man and a woman, between whom stands a child; also a milestone; at **Zlokučani bei Ūsküb (Colonia Flavia Scupi)** four grave inscriptions, above one of which is a funeral banquet; at **Niš (Naissus)** two Latin inscriptions and a marble relief; at **Ravna (Timacum minus?)** a relief representing a pine (?) tree; from **Baranica** an inscription. He also publishes a number of Latin inscriptions from Dalmatia, of which one is from **Guberevac**, six from **Babe**, four from **Stojnik**, and one from **Plevlje**.

EGYPT

RECENT GERMAN EXCAVATIONS.—In *Klio*, XI, 1911, pp. 258–264, L. BORCHARDT gives a summary of the most recent work of the Preussisches Papyrusunternehmen and the Sieglin Expedition in Egypt. The former found at **Dimeh** a considerable number of papyri, including fragments of a poem, a philosophical treatise, and an account of the acts of martyrs. At **Medinet Madi** it brought to light remains of a pylon and a temple, on one wall of which was a very large relief of Ptolemaic date, somewhat injured, representing a king sacrificing before Isis, who is suckling Horus. Seventy-five metres to the south was a small building with papyrus columns, which must have resembled the kiosk at Philae. The Sieglin Expedition completed the excavation of the mortuary temple of Chephren at **Gizeh**. To judge by the fragments, it must have contained over one hundred small statues. In front of it was a terrace, upon which stood five monuments, including a chapel, with a pair of huge blocks on either side of it, which probably supported colossal lions. There were also found remains of a second chapel. The small pyramid at the middle of the south side of the pyramid of Chephren was examined, but no mortuary temple found. It probably belonged to the wife of Chephren. The expedition also excavated a mastaba of the fifth dynasty with well-preserved reliefs which were taken to the University of Tübingen. At **Abusir** a cemetery was discovered with remains dating chiefly from the early dynasties, although there were a few things from the Middle and New Kingdoms, and a Greek sarcophagus. The principal finds were large and handsome stone vases, many of which were taken to Germany.

ANIBEH.—**New Empire Tombs.**—In *The Museum Journal*, University of Pennsylvania, I, 1910, pp. 42–48 (7 figs.), C. L. WOOLLEY reports upon his excavation of a number of tombs of the New Empire in 1910. They lie in the desert behind the modern Anibeh, and belonged to the ancient town of Ma'am. On an isolated hill was a gallery tomb with painted reliefs belonging to Prince Pennut, superintendent of the temple of Horus at Ma'am, about 1150 B.C. Southeast of this hill lies the cemetery, which is interesting because of the preservation of the mud brick superstructures to the shaft graves. The inner walls of these chapels were once covered with frescoes. One dromos tomb had above it a building consisting of a fore court with brick pillars and an entrance to the east, and behind, a second court above the tomb proper, to which a stepped approach led. The wall of the eastern court was continued so as to enclose the western, leaving a space about two feet six inches between the inner and outer walls. This was divided by cross walls every seven or eight feet, and in the spaces were subsidiary burials. The tombs were cut in the rock, and reached by a perpendicular shaft or a stepped dromos. The poorer people were buried in shallow graves. Numerous small objects of no great importance were found; the most interesting was a Cretan vase of the period known as Late Minoan I.

COPTOS.—**Royal Decrees of the Old Empire.**—In *C. R. Acad. Insc.* 1911, pp. 268–275, R. WEILL describes the stelae of the Old Empire found at Coptos in 1909–1910 (see *A.J.A.* XIV, p. 363; XV, p. 82). The blocks had been used as building stones in a foundation of Roman date. Two of

Pepi II, of the sixth dynasty, have to do with property rights and special privileges of the sanctuary of Coptos. Another, of Pepi I, grants certain privileges to a chapel of Apout, mother of the king. A fourth, belonging to a new king, Demb-ab-taoui, also called Ouazkara, regulates the rights and privileges of the temples in Upper Egypt. A translation of this inscription is given. A fifth decree is simply a letter of congratulation to an officer from a king, Nofirkaouhor, not previously known, whose Horus name is Noutirbaou. Both of these kings came after the sixth dynasty, and apparently not far apart. A second campaign has brought to light a seventh stela dating from the time of Pepi II. In *R. Arch.* XVII, 1911, pp. 451 f., A. J. REINACH describes briefly the excavations of 1910-1911. Two new stelae of the sixth dynasty were found, as well as a granite stela of the Middle Empire; the New Empire is represented by the top of an enormous carved and painted pillar of Amenophis II and the torso, with mutilated head, of a large statue of Ramses VI, both of red granite. The most numerous remains are of the Ptolemaic age. Among them are many terra-cottas. A dozen stelae, once painted or gilded, bear each two male busts in high relief. Style and type resemble the well-known stelae from Palmyra. Perhaps these busts represent some of the Palmyrene officers who were stationed here under Septimius Severus and Caracalla.

GIZEH.—The Egyptian Expedition of Harvard University and the Museum of Fine Arts.—In *B. Mus. F. A.* IX, 1911, pp. 13-20

(9 figs.), G. A. R(EISNER) gives the results of the Egyptian expedition of Harvard University and the Boston Museum of Fine Arts. The northern part of the cemetery west of the Great Pyramid was cleared and found to contain tombs of the family of Cheops, and later tombs belonging to priests and officials, to whom were entrusted the performance of the offering rites to the dead. These cemeteries had fallen into decay, and were covered with sand by the sixth dynasty. In 1906-07, the pyramid temple of Mycerinus was excavated, and in it were found pieces of an alabaster statue of Mycerinus. South of this temple was the quarry for the



FIGURE 1.—HEAD OF SHEPSKAF,
FROM GIZEH.

pyramid of Mycerinus, with tombs of priests on its north and west terraces. The causeway running from the pyramid to a valley temple was followed, and in 1908 the temple found. It was of mud-brick, but contained many valuable antiquities. In the portico were the bases of four life-size alabaster statues still in place, while the statues lay in fragments on the floor. Among them was the head of Shepseskaf (Fig. 1), son of Mycerinus. In other rooms were unfinished statuettes, copper implements and weapons, magic wands of flint, and a great number of vessels of alabaster, porphyry, diorite, crystal, slate, and other stones. The excavations were completed in 1910, when a

beautiful pair of slate statues (Fig. 2), now in the Museum of Fine Arts, were discovered. Remains of three temples were found on the site: 1. The foundations of a magnificent building of stone, laid by Mycerinus. 2. The mud-brick temple built by Shepseskaf, his successor. 3. A mud-brick reconstruction, built by Pepi II, of the sixth dynasty. The early death of Shepseskaf prevented him from finishing his father's temple in stone. Incidentally the foundations for a pyramid northwest of this temple were identified as those of Shepseskaf. The statues found make it possible to date the Sphinx and



FIGURE 2. — MYCERINUS AND HIS QUEEN, FROM GIZEH.

the diorite statue of Chephren in the time of Chephren. The Sphinx is the guardian of the sacred precincts of the Second Pyramid, and its head is a portrait of Chephren.

MEMPHIS. — *The Excavation of the Palace of Apries.* — In *Rec. Past*, X, 1911, pp. 1-14 (16 figs.), W. M. FLINDERS PETRIE describes briefly the excavation of the palace of Apries, the Egyptian Hopra. At the south side, across a wide fosse, was the entrance, opening upon which was a guard room with a trench about it. Beyond this, on the west, was the kitchen in which the brick fireplaces still remain. To the east lies the door to the harem quarter, and opposite it on the west the winter court. This was 116 x 107 ft., and contained four rows of four columns, which supported a roof nearly fifty feet high. Beyond the winter court were some halls and workrooms, and then at the northern end the summer court, which had a row of columns supporting a verandah along its south side about fifty-five feet high. Only the capitals still remain. The walls are from fourteen to twenty feet thick, and the whole area is about two acres in extent. In the

centre of the winter court is a stone cist, with close-fitting lid, sunk in the floor. In the fosse were found the blocks of a great gateway, dating from the twelfth dynasty, and adorned with six sculptured scenes, three on each side, representing the installation of the crown prince as heir to the kingdom. Each scene was about seven feet square. There were also found a great number of Egyptian, Persian, and Greek seals. The most remarkable had upon it two men taking an oath over a kid. One man has the Hittite spread eagle behind him, and the other, a seated figure, evidently his king. The Greek seals dating from the fifth century are important. In the Temple of Ptah remains of two sanctuaries were found, one of Amenhotep III, 1400 B.C., and the other of Amasis, 550 B.C., with the best portrait of the king yet found. Many minor discoveries were also made.

MEROE. — Recent Discoveries. — The work at Meroe during the last season has been on a larger scale than ever before, six hundred workmen being employed at a time. The temple of Amon, where the Ethiopian kings were crowned, and where they ruled, has now been completely cleared, so that its plans, which present several unique features, can be properly studied. Several interesting products of Ethiopian art were brought to light. In the Hall of Columns was found a dais, carved out of a single block of stone, upon which probably stood a small image, since glazed fragments were picked up in the vicinity. Here was also found an altar designed for the sacrifice of animals at the shrine of the temple. In the outer temple were discovered a royal dais with remarkable representations of captives, bound with their elbows attached to their heels behind their backs; and a great obelisk of black granite bearing what Professor Garstang believes to be the best continuous Ethiopian inscription that has been found. Another interesting discovery was a fine cameo carved with a design of galloping horses, one black and the other white, dating probably from about 300 B.C. Besides the temple of Amon, the temple of the Sun, which is situated about a mile out into the desert, was also completely unearthed. On the south side was found the funerary chamber, in which stood vases filled with bones and charcoal, perhaps the remains of the human sacrifices mentioned by Heliodorus. On the walls were sculptures representing men and boys being slain and tortured by the conquerors. Several other smaller buildings were also included in the season's excavations, such as a great columned hall, with frescoes of the king and queen on the walls. In front of the entrance was found a massive bronze head, dating from the period of Augustus, and perhaps representing Germanicus (15 B.C.-19 A.D.). The eyes are inlaid with alabaster. In the other palaces which were unearthed were found pieces of glaze-work, bearing the names of seven or eight royal personages of Ethiopia, probably of the sixth or fifth century B.C. Gold dust and nuggets to the value of nearly \$10,000 were discovered in two jars of pottery, unquestionably part of the traditional treasure of the Ethiopians. (*Nation*, June 29, 1911, pp. 657-658; *Athen.* June 24, 1911, pp. 724-725.)

NUBIA. — Recent Discoveries. — The Nubian Archaeological Survey has recently exhibited in London a collection of antiquities from the district which will be submerged by the raising of the Assuan dam. The pottery included black incised ware filled with white, resembling that found at Abydos and elsewhere, and thin glazed red and black vases. One of the latter had a long curved spout like a teapot. The most important object

was a mace about two feet in length, covered with thick gold foil, on which appeared in relief figures of animals like those on the votive mace heads and shields found at Hierakonpolis, and now in the Ashmolean Museum and elsewhere. These discoveries seem to prove that the predynastic and protodynastic culture of Egypt extended over Nubia. (*Athen.* June 24, 1911, p. 724.)

THE SUDAN.—Carian, Egyptian, and Nubian-Greek Inscriptions.—In *S. Bibl. Arch.* XXXII, 1910, pp. 261-268 (2 pls.), A. H. SAYCE publishes a number of minor Carian, Egyptian, and Nubian-Greek inscriptions and graffiti from the neighborhood of the second cataract in the Sudan.

SYRIA AND PALESTINE

NEWLY DISCOVERED SYRIAN INSCRIPTIONS.—In *R. Bibl.* VIII, 1911, pp. 115-119 (6 figs.), F. M. ABEL publishes a Safaitic inscription from Damascus, and six small Greek inscriptions from Aleppo, Antioch, Seleucia, and Gaza.

DAMASCUS.—Discovery of Roman Remains.—In *Pal. Ex. Fund.* XLIII, 1911, pp. 42-51 (plan), J. E. HANAUER reports the discovery near the great mosque of Damascus, of columns which formed part of the approach to the temple in Roman times. Following up the line of these columns, other columns were discovered built into the walls of the modern buildings. As the result of the investigation, the conclusion is reached that the ancient city was traversed by two long streets running east and west, ending in great triple gates, and lined with grand colonnades. These streets were intersected by others at right angles, and also ended in city-gates, some of which can still be identified: Bab Kisan, Bab Shaghur, etc. The palace and military quarter was where the present citadel stands; the agora, forum, or market, south of the latter, and south and west of the temple enclosure. The theatre still needs locating. Perhaps the name "Midan" (or theatre) suburb will furnish the clew.

SAMARIA.—The Discoveries of the Harvard Expedition.—In *Pal. Ex. Fund.* XLIII, 1911, pp. 79-83, S. R. DRIVER summarizes the reports of the discoveries of the Harvard Expedition in Samaria. See also H. VINCENT in *R. Bibl.* VIII, 1911, pp. 115-131; and D. G. LYON in *S. S. Times*, LIII, 1911, p. 6.

ASIA MINOR

COINS.—In *Ann. Arch. Anthr.* III, 1910, pp. 86-98 (pl.), J. G. MILNE publishes the coins collected by Professor Garstang on his first expedition in Asia Minor. They are Greek, Roman, and Byzantine. The oldest are a Lydian coin of electrum (Alyattes?), and two silver coins of Teos and Calandris, dating from the sixth and fifth centuries B.C. respectively.

GREEK INSCRIPTIONS.—In *Ann. Arch. Anthr.* IV, 1911, pp. 35-44 (map), M. L. SMITH and M. N. TOD publish thirty Greek inscriptions copied on a journey from Angora through Galatia, Cappadocia, Cilicia, and Com-magene. They are chiefly Christian funerary inscriptions.

CNIDIAN CHERSONESE.—New Inscriptions.—Eight inscriptions, one honorary, six funerary, from the Cnidian Chersonese are published by N. CHAVIARAS in *B.C.H.* XXXIV, 1910, pp. 425-428. Thirteen inscrip-

tions from the Cnidian peninsula, and three from Isnik, are published by M. SCHEDE in *Ath. Mitt.* XXXVI, 1911, pp. 97-104. No. 1 is a small fragment of a fourth century decree of the Cnidians. The rest are funerary inscriptions, No. 16 being the epitaph in hexameters of a young man.

PERGAMON. — **The Excavations of 1908-1910.** — A report on the excavations of 1908 and 1909 is published in *Ath. Mitt.* XXXV, 1910, pp. 345-523 (15 pls.). The building remains are described by W. DÖRFFELD, pp. 345-400. The Roman *thermae*, east of the upper gymnasium, and remains northwest of the gymnasium were uncovered, including a building which may have been a *prytaneum*. The most important result of the main excavation was the uncovering of a terrace further to the northwest, containing a precinct of Demeter. It was entered through a *propyleum* at the east and was bounded at the north and south by *stoas*. These buildings were erected by Apollonis, queen of Attalus I. The north *stoa* lies 4 m. higher than the level of the terrace. In front of its eastern half, nine rows of seats formed a sort of theatre, which must have served a purpose similar to that of the *Telesterium* at Eleusis. In the centre of the terrace the altar was found to be in good preservation. The Ionic temple of Demeter was of *trachyte*, except for a marble frieze with *bucrania* and garlands. It had a deep *pronaos* in *antis* to which was added in Roman times a second *pronaos*, *tetrastyle* with Corinthian columns. Inscriptions on both altar and temple show that they were built by Philetærus, founder of the Pergamene dynasty and his brother, Eumenes, in honor of their mother, Boä. Four Roman buildings in the lower town, studied by P. Schazmann, are briefly described. In the vicinity of Pergamon, the search for the royal grave in the great *tumulus*, Yigma Tepeh, was continued but without success. Three ancient sites, Tisna, Teuthrania, and Atarneus, were investigated. An examination of the lower plain of the Caicus established the correctness of Strabo's description of the Elaitic Gulf, the peninsula of Cane, and the mouths of the Caicus. The doubts which have been expressed in regard to it are due to a later change in the geography of the region. Ninety-eight inscriptions are published by R. HEPDING, pp. 401-493. They include decrees (1-7), lists of *ephebi* (8-21), dedications (22-44), honorary inscriptions (45-64), inscriptions on buildings (65-72), funerary inscriptions (73-91), inscriptions stamped on brick, lead, etc. (92-98). The miscellaneous finds, also published by HEPDING, pp. 494-523, include a large number of fragmentary sculptures. Two small statues of Nike, to be grouped with the statue of Aphrodite on a swan found in 1907 (*ibid.* XXXIII, 1908, p. 433), and numerous other fragments, decorated a building either as *acroteria* or otherwise. A head of Hermes is a copy of a fifth century type. A head of Eros resembles, in the arrangement of the hair, the Eros stretching a bow, attributed to Lysippus. Portraiture is represented by a head of Augustus, a head possibly of the youthful Tiberius, and a head of Agrippina the elder. Also noteworthy are an archaistic torso of the Apollo type and a seated statuette of Asclepius. The finest piece of sculpture is a fragmentary relief, showing Zeus (?) seated on an elaborately carved throne on which a lion's skin is spread. In style it resembles the *Telephus* frieze.

A brief report of the campaign of 1910 is added by W. DÖRFFELD, *ibid.* pp. 524-526. The excavation of the precinct of Demeter and of the Roman *thermae* was continued and the sanctuary of Meter Aspodene on the sum-

mit of Gündag, partially uncovered. At the February (1910) meeting of the Berlin Archaeological Society, W. Dörpfeld described the buildings of the sanctuary of Demeter, and H. Hepding the smaller objects found there, especially the inscriptions, through which much of the history and purposes of the buildings themselves is known. On an artificial terrace on the south slope of the hill, formed by cutting in at the back and building up in front, the first two kings, Philetaerus and Eumenes I, erected the temple and the great altar in honor of their mother Boa; then Queen Apollonis, wife of Attalus I (241-197), surrounded the area with a colonnade having propylaea in the east side, which she dedicated to Demeter and Cora Thesmophoroi; while in a new era of prosperity in the second century A.D., one C. Claudius Silianus added a Corinthian portico to the original Ionic temple, dedicating it to Demeter Carpophorus and Cora. A large number of other divinities had places of worship within the precinct, and the first epigraphic evidence for an altar to the "Unknown Gods" as seen by Paul at Athens, appears to be found here. The priestly offices were the same as at Eleusis. The sculptures, largely Roman, include reliefs of harvest symbols, Cerberus, Demeter, etc., and a number of heads of gods and emperors; of the cult statue, only a few fragments. P. Schazmann, from Geneva, spoke on the Roman buildings of the lower city (see above), which was still being excavated, mostly under great difficulties, owing to the modern occupation of the ground. An amphitheatre, a gymnasium, and an unidentified enclosure stand conspicuously above the present houses. (*Arch. Anz.* 1910, cols. 537-542.)

Supports for a Bench. — Two supports for a bench or throne at Pergamon, in the form of lions' feet, are published by P. SCHAZMANN, *Ath. Mitt.* XXXI, 1911, pp. 110-112 (fig.).

YUZZAT. — **Hittite Cuneiform Tablets.** — In *Ann. Arch. Anthr.* III, 1910, pp. 99-106 (3 pls.), T. G. PINCHES publishes nine fragmentary cuneiform tablets from Yuzzat, Boghazkeui. One is, perhaps, a tribute-list, and another, which reproduces an Assyro-Babylonian original, contains incantations against sickness.

GREECE

ARGOLIS. — **Explorations in 1909.** — In *Ath. Mitt.* XXXVI, 1911, pp. 21-38 (pl.; 7 figs.), A. FRICKENHAUS and W. MÜLLER report on a journey in Argolis made in 1909. In Phliasia they identified above the village of Hagios Georgios the fort mentioned by Xenophon, *Hell.* VII, 2, 5-9, 11-15, and noted various watch towers probably belonging to the same period. The Mycenaean fortresses of Lerna and Lerceia in the Argive plain were located; Asine, on the south coast, showed a circuit wall belonging in part to Mycenaean times; and a Mycenaean settlement was found near the temple at Nemea. Geometric and early Protocorinthian sherds, found in the interstices of the blocks of the great supporting wall at the Argive Heraeum, show that the early temple is to be dated about 700 B.C. In the village of Herakleion a fragment of the sima of the temple at Nemea came to light, and the two inscriptions, *I.G.* IV, 487 and 488, were shown to fit together. In Spaitzikou, in the plain of Asine, the foundations of a large temple, hitherto unknown, were observed. Lessa is to be placed on the height above Ligourio; the small forts Kasarmi and Kastraki are unimportant

and not earlier than the fourth century B.C. At Troezen a wall cutting off the city from the acropolis is identical with the one mentioned in *I.G.* IV, 757, and is thus dated in the second century B.C. A relief surmounting the inscription *I.G.* IV, 748 shows Aphrodite in the type of the Venus Genetrix, the same statue occurring on Roman bronze coins of Troezen. At Hermione remains of the Chthonia precinct were observed immediately west of the city wall, and on a hill on the coast to the southwest of the town Mycenaean sherds were found. On the island of Hydra the earlier acropolis, founded in Mycenaean times, lies on a hill a half-hour's walk to the west of the modern town.

ATHENS.—Recent Discoveries.—Several interesting excavations are being carried on in Athens by the Archaeological Society of that city. Northwest of the Acropolis, on the site of the Bouleuterion, several important antiquities have been brought to light, among them a marble head of a youth belonging to the fifth century B.C. of the type of the Apollo of the Omphalos. In order to determine the date of the retaining wall which supports the soil of the Pnyx, the public meeting-place of the Athenians, the embankment behind this wall is being cleared away. Here have been unearthed vase fragments of the fifth century and some stamped vase handles belonging to the fourth century B.C. It should, therefore, seem that the retaining wall could not be older than the fourth century. However, at a distance of about eight yards inward, there has been discovered another retaining wall, built of smaller stones laid in courses, which is considerably older, though the exact time of its construction cannot as yet be fixed. In the agora have been found in an almost perfect state of preservation a portico consisting of two pillars of Pentelic marble, 3 m. high, the torso of a youth in marble similar to the Eleusis boy, and several interesting bas-reliefs and portions of inscriptions. These excavations will be continued throughout the winter. (*Nation*, February 23, 1911, p. 201.)

Excavations in the Outer Ceramicus.—Under Professor Brückner work has been carried on to restore the outer ceramicus to its condition in the fourth century B.C. A terminal stone inscribed **ABATON** seems to mark the entrance to the enclosure in which ostracism was pronounced. Ten sherds have been found engraved with the name of Thucydides, son of Melesias, and twenty with that of Cleippides, son of Deinias. Not far away is the sanctuary of the Tripatores, several inscribed terminal stones of which have been found. There is talk of removing the church of Hagia Triada to complete the exploration of this quarter. Numerous reliefs, inscriptions, and other objects, including two bronze *kalpides*, have been found. The discovery of geometric vases shows that the necropolis is older than has been supposed. (*S. R., R. Arch.* XVII, 1911, p. 157, after A. Struck, in the *Frankfurter Zeitung*.) See also *Πρακτικά* for 1909, pp. 105–112, for a discussion of the levels; and *Arch. Anz.* 1910, cols. 531–532.

Excavations near the "Theseum."—G. P. OIKONOMOS, ephor of antiquities in Corinth, Argolis, and Arcadia, has presented a report to the Greek Archaeological Society on the excavations which were made near the "Theseum" in Athens in the hope of finding the ancient agora. Among the objects discovered, the most important is a torso of a beautiful statue of Apollo, which he identifies with the statue referred to by Pausanias as the work of the sculptor Euphranor. There were also

found several important inscriptions, one containing a law on the Aparchai of Eleusis; another relating to the mines of Laurium; and a third mentioning for the first time the name of an Athenian archon called Athenodorus. It would appear from the inscriptions that under the "Theseum" there was situated the famous Metroon of Athens, the position of which has long been a disputed point. (*Nation*, April 13, 1911, p. 382.)

The Rebuilding of the Propylaea.—In *Πρακτικά* for 1909, published 1911, pp. 113-116 (pl. with 4 figs.), N. M. BALANOS explains that during the year 1909 an attempt was made to collect the blocks belonging to the Propylaea lying scattered about the Acropolis. It was found that most of the missing stones of the northern part of the east front were still in existence. The drums of the columns which had been dislocated were put back in place. During this operation it was discovered that the different drums were numbered with red paint before being set up. The wooden blocks in the centre of the drums were found in an excellent state of preservation and removed to the museum.

Funeral Inscriptions.—In *American Journal of Philology*, XXXI, 1910, pp. 377-403 (5 figs.), D. M. ROBINSON publishes seventy-five Greek inscriptions, chiefly funeral, on *κινίσκοι* found in Athens and the vicinity. He also adds an inscription from Achaea, consisting of names and figures, and a funeral inscription of the second century A.D. from Hadji Bostanlar in ancient Lydia.

BOEOTIA AND PHOCIS.—**Excavations in 1909.**—In *Πρακτικά* for 1909, published 1911, pp. 123-130, G. SOTERIADES reports that further excavations have proved that the "prehistoric tomb" near the Cephissus at **Chaeonea** was really a place for burning the dead and was in use for a long period. Excavations at **Abae** and at **Elatea** yielded nothing important. Near **Drachmani** a large tomb was opened. Four metres below the surface a paved area was discovered, but for what purpose it was used is uncertain. The vase fragments found with it date from the fourth and third centuries B.C. At **Palioanivtsa**, three hours north of Drachmani, unimportant Greek tombs were opened. There are important remains of a Byzantine church here. At a site west of Drachmani there were found abundant remains of the neolithic period. One peculiar vase had upon it a face with painted eyes and nose represented plastically. Above the neolithic stratum was a Mycenaean settlement. Near the ancient **Drumaea** a prehistoric tomb was found.

CEPHALONIA.—**The Excavations of 1908.**—In *C. R. Acad. Insc.* 1911, pp. 6-9, P. CAVVADIAS describes briefly his excavations in 1908 on the island of Cephalonia. At **Mazaracata** he found a beehive tomb and sixteen tombs cut in the rock, in which there were eighty-three graves. The objects found in them, consisting of pieces of a girdle of gold, pins, daggers, arrow-heads, stone loom weights, numerous stirrup cups, vases of local manufacture, etc., date from late Mycenaean times. There was no trace of incineration, but the dead were buried in the position in which they died. At a second site between Mazaracata and Cocolata two beehive tombs were opened, in which were found a large number of engraved gems; also several rectangular tombs of earlier date, containing black pottery without decoration. The fact that one beehive tomb was built above a rectangular tomb proves that the latter type is the earlier. A bronze knife was the

only metal object found in them. At **Argostoli**, where a beehive tomb had been opened previously, a neolithic or aeneolithic cemetery was found. By the aid of walls constructed in cyclopean style terraces had been constructed on which the inhabitants lived. The dead were buried either inside the rude huts or between them. The excavations, then, show three stages of civilization in the island: (1) neolithic, which may be dated about 3000 B.C.; (2) pre-Mycenaean, about 2000 B.C.; (3) Mycenaean, dating from the fifteenth to the tenth century B.C.

CORFU.—**Archaic Pediment Sculptures.**—The excavations of the Greek Archaeological Society on the island of Corfu under the direction of Professor Dörpfeld have brought to light remains of a large *poros* temple, the pediment of which was 22 m. long. A deposit of archaic terra-cottas, representing Aphrodite, discovered in the vicinity suggests that it was dedicated to this goddess. The sculptures of the west pediment which were found represent a kneeling Gorgon 3.50 m. high, of Attic type, clinging with her right hand to the leg of Pegasus. Perseus, who is smaller, approaches from the right. On either side of this central group was a colossal lion. In the right-hand corner of the pediment Zeus is fighting a giant; behind Zeus is a tree. In the left-hand corner a female figure is seated before an altar-like building. Her hand is raised as if to check a warrior who is about to throw a lance. At the extreme left, filling the corner, a dead man is lying. This remarkable composition is of *poros*, the figures cut half in the round, and it dates from the middle of the sixth century B.C. The lions resemble in style the panther of the Hecatompodon. No other sculptures have yet been found; but these are most important for archaic Greek art, especially in Magna Graecia, Lower Italy, and Sicily. It is not yet clear to what school they belong. The influence of both Attic and Peloponnesian art is evident. (*Kunstchr.* XXII, May 5, 1911, cols. 392-393.) In *Ἑστία*, April 17, 1911, I. N. SVORONOS discusses the sculptures in some detail, and suggests that the temple was dedicated to Apollo. [See above, p. 356.]

DELOS.—**Financial Inscriptions.**—In *B.C.H.* XXXV, 1911, pp. 5-85, F. DÜRRBACH publishes nineteen financial inscriptions found in the excavations of 1906 to 1909, together with brief notes on twenty-eight others of which the text is not given. Most of them are accounts which throw light on Delian chronology and *prosopographia*, and on building operations. No. 31 is an interesting fragment of specifications, No. 17 a choregic inscription.

ELIS.—**Excavations of the Austrian School.**—At a meeting of the Austrian School of Archaeology at Athens, January 18, 1911, A. VON FREMERSTEIN, the director, gave an interesting account of the researches on the plain of Elis, an extensive area near the mouth of the river Peneus, known as the "Curved Elis." Remains of columns were unearthed, which perhaps came from the temple of Athena described by Pausanias. The most important of the buildings discovered was the Octagonon. Near this edifice, which in Christian times was transformed into a church, were found a number of inscribed tombstones. In one of the tombs there was discovered a beautiful gold ornament, now placed in the museum at Athens; in others vases of local manufacture of special interest. (*Nation*, April 13, 1911, p. 382.)

EUBOEAE.—**Excavations in 1909.**—In *Πρακτικά* for 1909, published

1911, pp. 206-208, G. A. PAPAVALSILEIOU reports that in 1909 he carried on excavations at a number of sites in Euboea, but discovered nothing of great importance. An almost illegible inscription seems to prove that the foundations of a small building near Stene belonged to a temple of Apollo.

HERMIONE.—Recent Excavations.—In Πρακτικά for 1909, published 1911, pp. 172-184, A. PHILADELPHUS reports that during the year 1909 he carried on excavations at various places on the peninsula of Hermione, but with little success. In the ancient cemetery, tombs dating from the first three centuries B.C., were opened containing strigils, mirrors, small vases for the most part undecorated, and ornaments.

LEUCAS.—Evidences of Achaean Civilization.—At a meeting of the German Archaeological Institute in Athens, December 7, 1910, Professor Dörpfeld announced that he had found indisputable and abundant evidence of Achaean civilization in Leucas (see *A.J.A.* XIV, p. 108). Beside the harbor on the eastern coast of the island, near the modern village of Nidri, at a point opposite the end of a peninsula projecting into the great harbor and shutting in a little land-locked bay, fifteen grave circles from five to ten metres in diameter were discovered at a depth of some five metres from the surface, and above each circle traces of funeral pyres. The chronological succession of the circles can be established and implies fifteen generations. The walls of the circles are built of flat stones and originally rose, perhaps a metre or so in height; within is packed earth and stones save for a rectangular space reserved as the grave chamber, in which were buried only men, to judge from the bronze weapons found in connection with this form of burial, while the women were interred in pithoi, the exterior of which often shows rope-like decoration in relief. Mound graves within the circles contained the remains of children. The pithoi also were beneath the floor of the grave circles, and the mouth of each pithos was covered with a second vase. Previously, potsherds alone had been known; in these graves the forms of the vases first became apparent. All were hand-made and slightly fired. There were typical Mycenaean shapes; vases with one or two high handles; a vase of the *Schnabelkanne* type; and, also, a high-footed vase with hollow stem and an opening designed apparently for the insertion of live coals to heat the contents of the bowl above. Some sherds had decoration in relief, others showed a picked-in design, while others had on the lip the notch seen in Halstatt pottery. At Dimini and Sesklo mound graves above the neolithic stratum contained vases of Mycenaean type. At Tiryns, also, mound graves lay above the older palace, but below the later. Among the bronze implements are a knife and a dagger blade with holes similar to those found by Tsountas in graves of the Achaean civilization of the islands, while a long bronze sword has a haft and hilt of gold unornamented. There were in one grave many flint arrow-heads, as in a domed grave at Pylos. From pithoi came two silver armlets and forty-nine beads of a gold necklace. Dörpfeld dates the grave circles in the period to which belong the shaft graves of Mycenae and the mound graves of Dimini and Sesklo. The bronzes and vases correspond with those in other parts of Mycenaean Greece. In Leucas, however, the richer Mycenaean culture, influenced by eastern, Oriental art, is not apparent. True to Homeric implication, these Achaeans of the west possessed the simpler culture of the north, in sympathy with which is the astonishment exhibited by Telemachus at Sparta when he be-

holds the splendor of ivory and of amber. Between the grave circles and the shore are remains of walls, which are identified as belonging to the palace. A second excavation was conducted close to and inside the modern chapel of Hagia Kyriake, at the end of the peninsula previously mentioned. The presence of terra-cotta figures and reliefs, in part archaic and in part dating from classical times, fixes the site of an ancient sanctuary of a goddess to whom the ancient Achaean sailors made their vows, as do the present inhabitants of Nidri to the Christian saint, whenever they start on fishing voyages. Above the chapel is located the house presented to Dörpfeld by the German Emperor, and a second building used as a museum, in which Professor Gossler of Stuttgart has established the collection of objects found in the course of excavation. The publication of these objects is promised, and Dörpfeld announces a forthcoming book on the Leucas-Ithaca question.

MOUNT LYCAEUS.—*The Excavation of the Hippodrome.*—In *Πρακτικά* for 1909, published 1911, pp. 185–200 (22 figs.), K. KOUROUNIOTES describes his excavations on Mount Lycaeus. The hippodrome ran from north to south. On the south was a long stoa, which can be followed for 70 m., but was originally longer. It was 11 m. deep. Within it were remains of Byzantine buildings and Christian tombs, but no trace of the columns. In front of it stood statues. Forty-five metres north of the stoa were four rows of steps used as seats by the spectators, extending from east to west in a straight line across the hippodrome. Fifteen metres from these steps, at a lower level, near where the starting-point must have been, was a row of seats made of large blocks. At a distance of 265 m. were found two small bases for columns about 60 m. apart, which the writer regards as *νύσσαι* or turning posts, but why there were two is not clear. Half-way down the hippodrome on the west side were found a few long plaques with two grooves in them, like the marks for starting in the stadia at Epidaurus and Olympia. They probably mark the site of the stadium. West of the hippodrome was a large building 38 m. by 20 m., the walls of which are standing to a height of $1\frac{1}{2}$ to 2 m. This was probably the *Xenon*. Near the southwest corner of the stoa was a small rectangular building standing on a three-stepped base with a portico of five Ionic columns in front and a pediment. Within it was semicircular. Fifty metres northwest of this building was a well.

MESSENE.—*The Excavations of 1909.*—In *Πρακτικά* for 1909, published 1911, pp. 201–205 (5 figs.), G. P. OIKONOMOS reports that in 1909 he excavated the end of the west side of the stadium at Messene and found that it had thirteen rows of seats, of which the lower rows were well preserved. In the agora remains of a large building were found, consisting of a room on the east, 19 by 18.3 m., adjoining another room 11.27 by 8.55 m., which had two columns between antae on its south end. Behind this room was a square, paved area, fronted on the north by four square bases for columns. Further to the west was another large room with a semicircular niche on its east side. This building is the *Synedrion* and is of Hellenistic date.

NAXOS.—*A Pre-Mycenaean Building.*—In *Πρακτικά* for 1909, published 1911, pp. 209–210, K. STEPHANOS reports the discovery at Kastraki, Naxos, of a building of two rooms, in which he found pre-Mycenaean vase fragments, some of which are unique, and stone tools.

OLYMPIA.—**The Discoveries of 1907-1909.**—In *Ath. Mitt.* XXXVI, 1911, pp. 163-192 (pl.; 24 figs.), F. WEEGE publishes the finds of the excavations of 1907-1909 at Olympia. The pottery from the stratum of dwelling houses is for the most part of coarse dark clay, hand-made and carelessly fired. The shapes are in many cases highly developed, suggesting metal prototypes. The appearance of stone implements and the entire absence of bronze is to be explained by the poverty of the settlement, which cannot be dated before the Bronze Age, but in the second millennium B.C. One late Mycenaean sherd was found. The finds from higher strata included numerous votive offerings of terra-cotta and bronze similar to those from the earlier excavations. One of the vase fragments found under the Heraeum is certainly proto-Corinthian, giving the eighth or seventh century B.C. as the *terminus post quem* for the building of the temple.

OROPUS.—**A Bronze Foot.**—During the year 1909, excavations at the Amphiareum, near Oropus, brought to light nothing of importance except a bronze foot wearing a sandal and spur. It probably belonged to an equestrian statue, several of which are known from inscriptions to have been set up in the vicinity. (V. LEONARDOS, *Πρακτικά* for 1909, published 1911, pp. 119-120; pl.)

PYLOS.—**Newly Discovered Tombs.**—In *Πρακτικά* for 1909, published 1911, pp. 274-292 (2 pls.), A. N. SKIAS describes his excavation of a Mycenaean tomb at a place called Viglitsa, about an hour's ride from Old Pylos. The two long sides of the tomb were walled up with rectangular slabs of stone, upon which, forming the roof, rested huge unworked stones. Above these were small stones to the depth of a metre. Nothing of importance was found in the tomb, and there seems to have been no settlement near by. Another important tomb was found half an hour to the west. To the southeast of Coryphasium, in a marsh, remains of a temple and other buildings were discovered; and in the neighborhood many late tombs.

SPARTA.—**Completion of the Excavations.**—At a meeting of the British School at Athens, December 2, 1910, Mr. Dawkins announced that the School had this year, after a short period of excavation, completed its work at Sparta. On the hill of Menelaion a large number of houses were laid bare, belonging to the end of the Mycenaean period; all were much destroyed by erosion, and finds were few; but the best preserved house yielded typical Mycenaean pottery and clay sealings to close the mouths of wine-jars. The conflagration which finally destroyed the large Mycenaean town on this hill, preserved on these sealings traces of the vine leaves which were placed in the mouth of the jar to prevent the clay from settling into the wine, and of the rushes with which the sealing was bound to the jar. The clay was stamped with a seal which bore an intaglio design of animals. After the destruction of the Mycenaean town, Sparta was refounded at the beginning of the Iron Age, on the classical site in the plain below, on the opposite bank of the Eurotas, and only the shrine of the Hero Menelaus marked the earlier settlement. From the sanctuary of Artemis Orthia, two inscribed bases of the second century A.D., for statues of the *bomonikai*, victors in the contest of endurance at the altar of Orthia, are similar to a base already known in the museum, but one of the new examples gives a fresh formula of some interest, as well as furnishing an excellent specimen of Laconian dialect, traces of which are still preserved in the speech of Greek

peasants at Monemvasia, where *rotacism* and the use of the article form δ instead of η is habitual. At **Kalyvia tes Sochas**, an hour and a half south of Sparta, the Eleusinium was excavated after the German Institute had generously waived a prior claim. No important results were obtained, but stamped tiles and a few small objects demonstrated clearly the nature of the site.

Acquisitions of the Museum. — In *Πρακτικά* for 1909, published 1911, pp. 293–300 (2 figs.), K. A. RHOMAIOS describes a number of antiquities found by him in the vicinity of Sparta and removed to the museum. These are a Doric capital of local marble, with a row of leaves carved on the hypotrachelion, of sixth century date; from the village of Kalyvia, a relief representing Artemis, and a mediaeval lion. About 300 m. north of this village was the ancient Eleusinium. From the church of Hagios Ioannes came a female torso of poor workmanship, part of a sarcophagus, and an archaic Doric capital; from the monastery of Koumpares, a large slab similar to one in the British Museum, on which, surrounded by a garland, are carved a cylix, sandals, a mirror, a distaff and spindle, a pitcher, a comb, a shell, and a few other objects; from the monastery of Zermpitse, part of a sarcophagus, known since the time of Ross, representing an Amazon fight. It is of careful workmanship, and dates from the end of the fourth century. On the side of the mountain now called Platyvouni, an ancient quarry was discovered.

SUNIUM. — **The Excavations of 1909.** — In *Πρακτικά* for 1909, published 1911, pp. 117–118, V. STAES reports that during the year 1909, the remaining part of the precinct of Poseidon at Sunium, i.e. the east slope of the hill on which the temple stands, was excavated. Part of a female torso, probably belonging to the frieze of the temple destroyed by the Persians, was found, as well as part of an inscription which has the name of the god, and confirms the conclusion that the temple was dedicated to Poseidon. Near the temple of Athena, where remains of an earlier temple were found the year before, a great number of small vases were discovered, dating from the sixth and fifth centuries B.C.

TEGEA. — **Recent Excavations.** — In *Πρακτικά* for 1909, published 1911, pp. 303–323 (5 pls.; fig.), K. A. RHOMAIOS describes his work at Tegea, in 1909. The house which stood at the southwest corner of the temple of Athena Alea was removed, and the ground excavated, and the marshy pools to the east and north filled in. Two statue bases were discovered north of the temple, one of which he thinks supported the female statue, the head of which Gardner and Furtwängler tried to connect with the Atalanta torso. The separate finds were not of great importance, consisting of part of a male torso from a pediment figure, part of an epistyle block inscribed ΚΑΦΕΙΔΑΙ, the moulding of the upper left-hand corner of the doorway, a male hand from a pediment, three pieces of acroteria, a "spectacle" fibula, 18 cm. long, and numerous geometric potsherds. At **Ibraem Effendi** unimportant tombs of the fourth century B.C. were found; and at the site of the temple near **Hagios Sostes**, great quantities of terracottas, mostly broken, having to do with the worship of Demeter and Cora. An important bronze statuette, 30 cm. high, represents Cora holding a *phiale* in her right hand, and in her left what may have been a torch. The figure is of about the same date as the charioteer at Delphi. Forty marbles

were collected from the neighboring villages into the local museum, of which an account is given. In *C. R. Acad. Insc.* 1911, pp. 257-268 (4 figs.), C. DUGAS publishes the results of his study of the temple with Berchmans in 1910. The outer colonnade was Doric. So, too, were the columns of the pronaos and opisthodomos, though of a different size. Over these were sculptured metopes, as is proved by two inscriptions, one of which reads ΑΥΓΑ ΤΗΛΕΦΟΣ Α, the last letter standing for 'Α[λέος]; the other is the ΚΑΦΕΙΔΑΙ given above. There was no interior colonnade. The Corinthian columns mentioned by Pausanias were probably half columns resting on the same foundations as the cella walls. Two small fragments



FIGURE 3.—BRONZE ATHENA FROM
TEGEA.

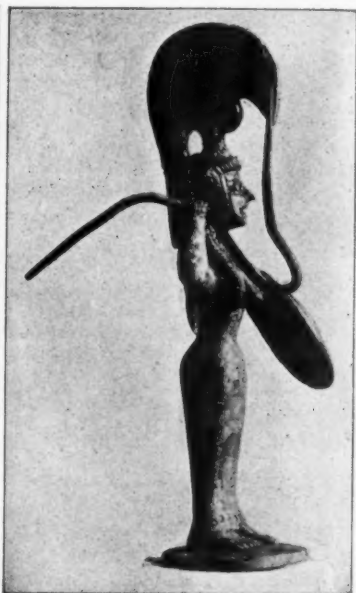


FIGURE 4.—BRONZE ATHENA FROM
TEGEA.

of Corinthian capitals may have belonged to these. The Heracles head and the helmeted head at Piali both came from the west pediment. He believes with Rhomaïos that the female head already mentioned did not belong to either pediment. The small objects date for the most part in the geometric period, but one vase is Mycenaean. The bronzes are ex-votos in the form of animals, pins, rings, fibulae, etc. East of the temple, foundations were uncovered, probably belonging to the altar of Melampous (Paus. VIII, 47, 2), and near it a primitive statuette of Athena (Figs. 3 and 4). The two statue bases were probably part of a row.

THESSALY.—**Excavations in 1909.**—In *Πρακτικά* for 1909, published 1911, pp. 131–171 (13 figs.), A. S. ARVANITOPOULLOS describes his excavations in Thessaly in 1909. At **Pagasae** further stelae were found in the first and second towers already excavated, and a few in remains of Turkish houses between the first tower and Holykoi. The citadel was discovered where Leake imagined it to be, and fortification walls and numerous architectural fragments of fourth century date brought to light. The only sculptures found were part of a dog and the hoof of an ox. The building to which these belonged was a temple, which may be conjecturally assigned to Dionysus Pelekys. Near by was a pit 3 m. deep. In the eastern part of the citadel walls and potsherds of the neolithic period were found. On a low hill at **Kouphovouno**, 1 km. north of ancient Ioleus, neolithic remains were also found; and between the two a few fifth century tombs and some Mycenaean vase fragments. At a desolate place called **Soros**, one hour south of Pagasae, an ancient site was discovered, which is probably to be identified as Amphanae. It was occupied down to about 400 B.C. It had a large acropolis divided by walls into two parts, of which the southern was the lower and smaller. A series of four gates led to the inner enclosure. The walls, which are well preserved, seem to date from the fifth century B.C. Everywhere remains of houses are to be seen. One building, 14 m. long, was probably the palace. At **Palaïokastro**, near Carditza, important finds of small objects were made.

Excavations in 1910.—At an open meeting of the British School at Athens, December 2, 1910, Mr. DAWKINS outlined briefly the results of the investigations of neolithic culture in Northern Greece, continued during the past year by Messrs. Wace and Thompson. A tumulus at **Tsangli** in Central Thessaly, about midway between Pharsala and Velesino, revealed house walls belonging to the later part of the first neolithic period, characterized in Thessaly by red-on-white painted pottery. Three successive houses were distinguished in one case; the latest shows the rectangular plan well developed, and was unique in having at each interior angle two buttresses, as yet unexplained, unless the suggestion is correct that they served as bases for upright beams which supported the roof. The house had a row of wooden columns down the middle. The finds here were vases, celts, and terra-cotta figurines, in which the excavation in general was very rich. The excavators by a comparison of results with those of sites previously examined, now distinguish four prehistoric periods of Thessalian civilization:—

Neolithic I (red-on-white painted ware).

Neolithic II (with ware characteristic of the Dimini settlement).

Chalcolithic.

Early bronze age (unpainted pottery). The latter part of this age is contemporaneous with Late Minoan II and III, and includes the tombs at Dimini, Sesklo, and Zerelia.

A second tumulus at **Rachmani**, between Larissa and Tempe, revealed a house belonging to the Chalcolithic period. Here were found specimens of pottery with paint laid on so thickly as to form a sort of incrustation, a large store of carbonized vegetables (wheat, peas, lentils, figs, etc.), and four very curious figurines representing the human form, with bodies

of terra-cotta and heads of painted stone, a kind of primitive anticipation of acrolithic sculpture. Many Late Minoan III sherds were among the latest pottery of this deposit, together with fragments of the peculiar Thessalian geometric pottery found at Marmariani and Theotokou.

Recent Discoveries at Gonnus.—A. S. ARVANITOPOULLOS has been conducting excavations at Gonnus, at the foot of Mount Olympus in Thessaly, exactly opposite Tempe, where he has had the good fortune to find many objects of importance. Foremost among these is a round temple of Athena. Fragments of the statue of the goddess also came to light, one of which is inscribed with the name Xenocles, either the dedicator or sculptor of the statue. There were also found inscriptions and decrees bearing on the history of the place. The local authorities have decided to build a museum on the spot for the reception of the finds. (*Nation*, March 23, 1911, p. 303.)

Discoveries at Laspochorion.—A. S. ARVANITOPOULLOS has excavated, at Laspochorion in Thessaly, a number of geometric tombs, and near them has found the acropolis of Homolium, and a temple with rich epigraphic and architectural remains. (*Hellenic Herald*, V, 1911, p. 36.)

Latest Excavations at Pagasae.—A. S. ARVANITOPOULLOS has had another successful season of excavations at Pagasae in Thessaly, where he has cleared the second tower, which was found to have been filled with rubbish containing a number of painted Greek gravestones. About one hundred such gravestones were brought to light, some of them in an excellent state of preservation, of which the following are the most important: A stele of Aristoxydes of Ceios, representing a warrior greeting a youth; one of Clemene, the daughter of Agathocles, representing an altar with a serpent; one of Lycoleon of Angea, with a feast of the dead; and one of Paulus, son of Artemidorus, with a beautiful representation of an anthemion. (*Nation*, February 2, 1911, p. 125.)

Inscription on a Grave Stele near Pharsalus.—In *Berl. Phil. W.* XXXI, 1911, col. 62, F. HILLER V. GAERTRINGEN publishes an inscription on a grave stele recently discovered near Pharsalus, and probably dating from the fourth century B.C. The inscription reads:—

Ἀλκινόας κόραν λεῦσσε ξένη καὶ Μενεχόρῳ
Τιμάνδρῳ, ἥβας τὰν στέρεσ' αἶσα λυγρά.
τῆς ἀρετῆν ἀβέσσητος ἀειμαστόν συνδύαμι
οὐκ ἀκλεῶς φθιμένας τῷδε τάφῳ κτερίσαν.

Inscriptions.—In *Ann. Arch. Anthr.* III, 1910, pp. 145-160, A. M. WOODWARD publishes fourteen Greek inscriptions found by A. J. B. Wace and M. S. Thompson, in Thessaly, in the spring of 1910. The longest is a deed of manumission of which thirty-five incomplete lines remain.

TIRYNS.—**Recent Discoveries.**—In *Kunstchr.* XXII, April 28, 1911, cols. 382-383, E. WALDMANN reports upon the recent discoveries at Tiryns, as described by K. Müller and G. Rodenwaldt at a meeting of the Imperial German Archaeological Institute at Athens, March 8, 1911. The later palace, which dates from late Mycenaean times, underwent several rebuildings. Evidence was found which will make it possible to date the different remains. Excavations were conducted in the rooms about the bathroom and in the western part of the court, and a façade found built into a later wall. It was discovered that the alabaster frieze was not placed high up

under the roof, but probably on a level with the eye. A considerable number of small fragments belonging to several frescoes were found, and these have been put together as far as possible. They fall into two groups. The upper parts of two female figures, a charioteer, and a man driving a herd of cattle belong to the older period. The later frescoes belong to the palace of the third Mycenaean period, and represent a hunt. Parts of six different scenes are preserved in which boars are being pursued by dogs, etc. The composition recalls the gold rings of the third shaft grave at Mycenae. On other fragments there appear a man with two dogs, and two women in



FIGURE 5.—FRESCO FROM TIRYNS.

a chariot (Fig. 5). There is also part of a frieze representing deer. These small frescoes are about 20 cm. high. There are also parts of a larger fresco representing a woman cup-bearer (Fig. 6) resembling the dancer at Cnossus, but with her hair dressed in a manner not represented in Crete. The style resembles that of the cup-bearer of Cnossus. The later frescoes at Tiryns are contemporary with the remains at Orchomenus. The frescoes at Mycenae and the house of Cadmus at Thebes are contemporary with the remains of the older palace at Tiryns, which corresponds with the great

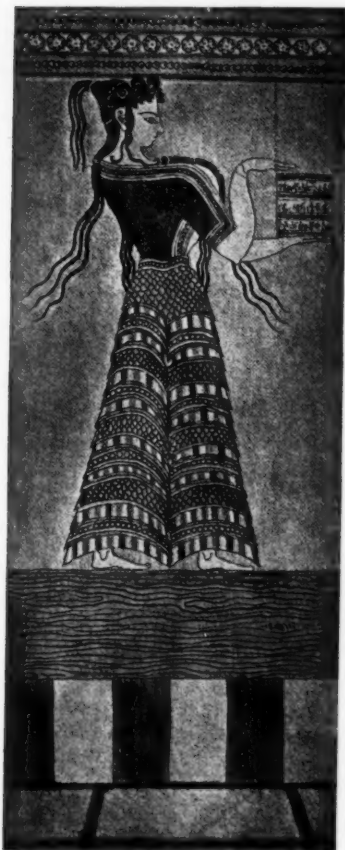


FIGURE 6.—FRESCO FROM TIRYNS.

tery; several steatite vases; two large pedestals for lamps; and a fine *rhyton* of obsidian. There were also found two tablets with Cretan script, and fragments of wall-painting. A few yards distant from the palace was discovered a pit filled with sherds of the Early and Middle Minoan periods, from which circumstance it is hoped that objects belonging to these earlier periods will also be discovered. To the north of Tylisus, near the river Gazes, a cemetery of the Middle Minoan period was discovered, and near the shore a settlement of the Late Minoan period. These will be explored later. (*Nation*, April 6, 1911, p. 353.)

period of art in Crete. See also G. RODENWALDT, *Ath. Mitt.* XXXVI, 1911, pp. 198-206 (pl.; 3 figs.).

TYLISUS.—**Recent Excavations.**—Important excavations have been carried on by J. Hatzidakis, ephor of antiquities in Crete, near the village of Tylisus, about six miles west of Candia and Cnossus. They have resulted in the discovery of a palace with surrounding buildings which belong to the same period as the other Minoan palaces in Crete. It also was destroyed by violence and fire, and many of the movable articles seem to have been carried away; but enough remains to show the high state of civilization in which the occupants lived. Already an area of about 600 m.—that is, about half the palace—has been unearthed. About 6 m. west of the palace was discovered a building, 25 m. by 15 m. in extent, divided into five apartments. The palace was two or three stories in height, as can be seen from the remains of staircases. It belongs to the Late Minoan period, but traces of the Middle Minoan period have been found in a lower stratum. The objects unearthed are similar in character to those found at the palaces of Cnossus and Phaestus. Most important among them are: huge bronze caldrons and other vessels; a small bronze statuette, about 12 inches high, of beautiful execution; many fragments of pot-

ITALY

AREZZO.—*The Discovery of the Chimaera.*—Some documentary evidence bearing on the site of the discovery of the chimaera of Arezzo (1553) is presented by A. DEL VITA in *Röm. Mitt.* XXV, 1910, pp. 293-297.

LAMPEDUSA, LAMPIONE, AND LINOSA.—*Explorations in 1909.*—In *Ann. Arch. Anthr.* IV, 1911, pp. 19-34 (3 pls.; 2 figs.), T. ASHBY reports the results of a search for ancient remains on the islands of Lampedusa, Lampione, and Linosa in 1909. On **Lampedusa**, which lies 112 miles south-southwest of Girgenti, there are numerous remains of prehistoric buildings. The huts were oval, rather than round, and the foundations consisted of unworked blocks, not over 1 m. high, placed on end. There were two concentric rings of these blocks with a packing of earth between, and above them were laid courses of flat stones. Traces of walls were found adjoining these huts. Punic tombs and remains of a Roman building are also to be seen. On the little island of **Lampione**, eight miles away, there are two groups of ruins, but no prehistoric remains. An abundance of Punic or Roman potsherds was found. On **Linosa**, thirty miles northeast of Lampedusa, some Roman bronze coins and fragments of Samian ware were discovered, but the remains of buildings seem not ancient.

ROME.—*A New Statue of Augustus.*—The important statue of Augustus found in June, 1910, in the Via Labicana, and now in the Museo Nazionale, is described and illustrated by L. MARIANI in *B. Com. Rom.* XXXVIII, 1910, pp. 97-117 (3 pls.; 6 figs.). It is the civic counterpart to the military Augustus of Prima Porta. Abundant traces of coloring remain.

An Inscription from the Via Marforio.—A valuable inscription found in the Via Marforio, under the Arx, is interpreted by G. COSTA, *B. Com. Rom.* XXXVIII, 1910, pp. 118-140. It appears to throw light upon the topography both of the Auguraculum and of the Sacra Via.

An Inscribed Copper Tablet.—The bed of the Tiber near the Ponte Vittorio Emanuele has yielded a copper tablet with inscription (second century A.D.), mentioning two procurators of imperial estates, including that at Prima Porta. (D. VAGLIERI, *B. Com. Rom.* XXXVIII, 1910, pp. 141-149.)

A New Street.—A fragment of a Roman street, 5.40 m. wide, has been found 1.70 m. below the level of the Piazza della Bocca della Verità. The street, which appears not to have been used by vehicles, ran towards the Pons Sublicius. (G. GATTI, *B. Com. Rom.* XXXVIII, 1910, p. 249.)

Discoveries in the Baths of Diocletian.—In fitting out the remains of the Baths of Diocletian for the Archaeological Exhibition in Rome for the current year, an interesting and unexpected discovery was made of two hitherto unknown swimming-baths, lined with marble, into which broken granite columns and a large quantity of decorated marbles, stone, and porphyry had fallen. (*Nation*, March 2, 1911, p. 227.)

Remains of a Large Building.—In the Via Capo d' Africa, remains of a large public building have been discovered at a depth of 10 m. (G. GATTI, *B. Com. Rom.* XXXVIII, 1910, p. 251.)

A New Columbarium.—An important columbarium of the early Empire has been uncovered between the Via Collatina and the Via Praenestina. Another of the same style and age was found near by, but

in a bad state of preservation. (G. GATTI, *B. Com. Rom.* XXXVIII, 1910, pp. 253-257.)

VERONA.—**A Roman Grave.**—In *Madonna Verona*, IV, 1910, pp. 184-189 (7 figs.), G. PELLEGRINI describes a Roman grave of the first century A.D. found at Verona in the spring of 1910 (see *A. J. A.* XV, p. 99). It contained two funeral urns in which were two glass receptacles holding the ashes of the deceased. Various objects found in the tomb show that a man and a woman were buried in it, and the presence of several surgical instruments reveals the occupation of the man. The tomb was robbed in antiquity.

FRANCE

ALESIA.—**Gallic Houses.**—In *C. R. Acad. Insc.* 1911, pp. 237-248 (plan; fig.), J. TOUTAIN describes the excavations in the Gallic quarter of Alesia in 1910. The remains consist of rectangular houses or cellars cut in the rock and more or less regular in shape. The largest are from 5.50 m. to 6 m. long and 3.50 m. to 4 m. wide, cut rather deeply, with stone stairways leading down into them. There were no superstructures. The floor was of beaten earth. A coin of Claudius and two pieces of Samian ware inscribed *Germani* and *Frontini* show that these houses were inhabited in post-Christian times. The primitive Gallic hut is thus proved to have been not always round. This part of the town lies about 400 m. west of the principal field of excavation.

AVOCOURT and LES ALLIEUX.—**Graffiti and Pottery Stamps.**—In *R. Arch.* XVII, 1911, pp. 51-54, G. CHENET publishes a number of new graffiti and pottery stamps found in the Gallo-Roman pottery works at Avocourt and Les Allieux (Meuse).

CAVAILLON.—**Polychrome Vases.**—In *R. Ét. Anc.* XIII, 1911, p. 82 (2 figs.), F. MAZAURIC calls attention to two Celtic polychrome vases recently found at Cavaillon in a grave of the first century B.C. The decoration consists of bands in the running-dog pattern, olive leaves, etc., in four colors, purple, pink, yellow, and black, upon a white slip.

CHÂTEAUMEILLANT.—**A Gallo-Roman Well.**—In *B. Soc. Ant. Fr.* 1910, pp. 229-233 (fig.), E. CHÉNON describes the contents of a Gallo-Roman well at Châteaumeillant (Cher). The well has been known for some years, but has only recently been cleared to the bottom, a depth of 18 m. Among the objects found in it was a well-preserved wooden pail 0.54 m. high, a number of vessels of different shapes, hooks, a coin of Alexander Severus, and a human skeleton.

FERRASSIE.—**A New Skeleton of the Mousterian Period.**—In *C. R. Acad. Insc.* 1911, pp. 224-227, Messrs. CAPITAN and PEYRONY announce the discovery of a second skeleton of the Mousterian period at Ferrassie, Dordogne (see *A. J. A.* XIV, p. 381). It belonged to a woman about 1.48 m. high. The bones of the lower part of the body are well preserved, but small fragments only of the skull and thorax. Bones of the horse, reindeer, mammoth, and rhinoceros were found in the same stratum. The race represented by the two skeletons of Ferrassie was inferior to the Australian aborigines.

MÉROUVILLE.—**Recent Discoveries.**—In *B. Soc. Ant. Fr.* 1910, pp. 284-291 (fig.), A. HÉRON DE VILLEFOSSE describes a number of an-

tiquities recently found at Mérouville (Eure-et-Loir), including a bronze fibula in the form of a panther, a ring inscribed AMA, a pocket-knife, etc. The coins discovered date from late imperial times. Antiquities have been found at this place for more than half a century, most of which are in the museums at Chartres, Orléans, and Étampes.

PARIS.—**A Terra-cotta Lantern.**—In *B. Soc. Ant. Fr.* 1910, pp. 238-242 (2 figs.), A. HÉRON DE VILLEFOSSE publishes a lantern of terra-cotta found near Homs in Syria and recently acquired by the Louvre. It is shaped much like a bottle with a ring at the top and an opening below at one side. A somewhat similar lantern is in the museum at Sousse, Tunis.

VAISON.—**A Double Herm.**—In *R. Ét. Anc.* XIII, 1911, pp. 199-201 (fig.), J. SAUTEL records a number of minor discoveries at Vaison, of which the most important is a double herm with a man's and a woman's head facing in opposite directions.

BELGIUM

EXCAVATIONS IN BELGIUM IN 1910.—In *B. Mus. Brux.* X, 1911, pp. 41-47 (7 figs.), A. DE LOÏ describes an important prehistoric hearth excavated at **Vaux-et-Borset** (Liège). It is 7 m. long and 2 m. to 3 m. wide. Five hundred and forty objects of flint, including various implements, and 870 fragments of pottery were found. Of the latter, 270 are red or grayish red, 440 of a coarse black type, and 118 of a fine black, gray, or yellow ware. Many other small objects were found. A second hearth, 2.50 m. by 1.50 m., yielded 26 objects of flint and 17 potsherds. At **Vellerelle-les-Brayeux** (Hainaut) a Belgo-Roman house was discovered. In the ancient cemetery at Luiksgestel (Campine) two burials were found intact, containing vases with incised decoration belonging to the third and fourth periods of the Bronze Age.

AUSTRUWEELE.—**An Ancient Canoe.**—In *B. Mus. Brux.* X, 1911, pp. 3-5 (2 figs.), E. RAHIR describes an ancient canoe found in October, 1910, at Austruweel, near Antwerp. It was 11 m. long, 1 m. wide forward, and 1.70 m. in the stern, and had been cut out of a single oak log. It was 5.50 m. below the present surface, resting on what had been the bed of an ancient stream. The absence of other objects found with it makes accurate dating impossible, but the use of metal tools in its construction and the employment of iron clasps, as well as the level at which it was found, make it probable that it was made in the Iron Age in pre-Roman times. It is now in the museum at Brussels.

BRUSSELS.—**A Youthful Dionysus.**—In *B. Mus. Brux.* X, 1911, pp. 10-12 (fig.), J. DE MOT publishes a statuette of a youthful Dionysus standing beside a tree trunk, against which leans a panther with one foot resting on a goat's head. The figure has lost both arms, and the legs from the knees to the ankles are missing. It is a work of Hellenistic date, but owes much to Praxiteles.

SWITZERLAND

GENEVA.—**The New Museum of History and Art.**—October 15 1910, a new Museum of History and Art was opened at Geneva. The various public museums formerly scattered in different parts of the city are

now for the most part united. In *R. Arch.* XVI, 1910, pp. 401-412, W. DEONNA gives an account of the new museum, with notes on the other public and private collections that still exist at Geneva.

GERMANY

BERLIN. — **A Royal Egyptian Portrait Head.** — In *Ber. Kunsts.* XXXII, 1911, cols. 71-79 (2 figs.), H. SCHÄFER publishes a fine portrait head of the eighteenth dynasty, originally belonging to the body of a sphinx. It is of red granite, and still retains much of the paint which once covered it. It was found by Lepsius with two other portraits of the same person, and, in spite of the beard and the red color of the flesh, it probably represents Queen Hatshepsut. It must be regarded as the best portrait of the queen extant.

A Marble Relief. — The Berlin museum has recently acquired a marble relief from Rome representing one of the Dioscuri. It once formed part of a larger composition to which the archaistic Zeus, also in Berlin, belonged, but the original arrangement of the sculptures is uncertain. (B. SCHRÖDER, *Ber. Kunsts.* XXXII, 1910, cols. 49-51.)

Marble Statuettes. — The Berlin museum possesses several marble statuettes which are replicas of well-known statues, among them two recently acquired from Cyprus. One is a copy of the same original as the Aphrodite of Fréjus, with head, arms, and feet missing; and the other an Asclepius. The latter, which is a copy of a fourth-century original, lacks the head, right arm, left hand, and the feet. (B. SCHRÖDER, *Ber. Kunsts.* XXXII, 1911, cols. 131-134; fig.)

BUCH. — **A Town of the Bronze Age.** — In *Z. Ethn.* XLII, 1910, pp. 974 f., A. KIEKEBUSCH tells of the present condition of the excavation of a town of the Bronze Age at Buch (near Berlin), something unique in Northern Germany. There are indications of the keeping of cattle, and the pottery is of the Lausitz type with various implements of stone, clay, bone, and bronze intermingled.

FRANKFORT A. M. — **Meeting of the Südwestdeutscher Verband f. Altertumsforschung.** — Abstracts of the papers read at the meeting of the Südwestdeutscher Verband für Altertumsforschung held in April, 1911, at Frankfort A. M., are published by E. KRÜGER in *Röm.-Germ. Kb.* IV, 1911, pp. 43 ff.

HALTERN I. W. — **Further Excavations at the Roman Fort.** — Further excavations on the site of the Roman fort at Haltern have yielded no considerable results beyond the discovery of what seems to be the impluvium with cisterns in the atrium of the house of the legate. (*Röm.-Germ. Kb.* IV, 1911, pp. 17-19.)

KELHEIM. — **A Quadrangular Entrenchment.** — Excavations on the site of a pre-Roman settlement at Kelheim (Bavaria) have brought to light an entrenchment, 80 m. by 100 m., of the late La Tène period. (*Röm.-Germ. Kb.* IV, 1911, pp. 19-21.)

KELLMÜNZ. — **Roman Sculptures.** — In *Röm.-Germ. Kb.* IV, 1911, pp. 1-6 (2 figs.), J. LINDER reports the finding of three Roman statues of marble, which had stood in niches on grave monuments. The figures, of more than life size, represent a woman seated and a woman and a man standing. The heads are missing and the statues are otherwise mutilated.

They were found built into the foundation wall of the late Roman fort. Other remains of Roman sculptures include a lion holding a goat's head between its front paws.

LEIPZIG.—**A Tomb from Citium.**—In *Ann. Arch. Anthr.* III, 1910, pp. 107–117 (pl.), J. L. MYRES publishes the contents of a tomb from Citium, in Cyprus, discovered before 1895 and now in the museum at Leipzig. Among the metal objects were three long skewer-like spearheads of bronze, in which the socket for the handle was made by beating out the original ingot into a thin plate and bending this round until the edges met. Such spearheads belonged to the Cypriote *sigynnae*. The vases were in general not important. The tomb dates from the early Iron Age, or about 1000 B.C. *Ibid.* pp. 133–144 (pl.) the same writer discusses a peculiar fibula from this tomb. It is a distinctly Cypriote type and belongs to the fourth period of Cypriote fibulae.

MAINZ.—**Latin Inscriptions.**—Four Latin inscriptions recently found near Mainz are published in the *Röm.-Germ. Kb.* IV, 1911, pp. 23 ff., three from tombstones, one from a votive offering.

MUFFENDORF.—**Altar to Diana.**—Repairs made at the old church at Muffendorf, near Godesberg, have brought to light an altar-stone bearing the inscription, "*sanctissimae deae Dianae.*" (*Röm.-Germ. Kb.* IV, 1911, pp. 35 ff.)

MUNICH.—**Acquisitions of the Museums in 1909.**—Four brief notices of the acquisitions of the Munich collections in 1909, taken from the official reports, are published in *Arch. Anz.* 1910 (cols. 470–496; 18 figs.). I. *Glyptothek.* Head and shoulders of a man, in white marble, from near Rome, of the so-called Scipionian type, but identified as a priest of Isis by the shaven head, cross-shaped wounds, and scanty garment. A section of the border of a painted plaster floor from the audience chamber of the palace of Amenophis III at Thebes; a delicate unidentified water plant with a duck flying in front alternates with papyrus plants; the colors of blue, red, yellow, green, and black were laid on dry, as at Hawata, and have in places a streaked appearance. Two sepulchral reliefs from Palmyra in yellowish limestone; the bust of a woman holding distaff and spindle, inscribed in Hebrew characters, and a finer bust of a man in elaborate costume and headdress, with the left hand, now lost, touching the cheek. (P. WOLTERS, cols. 470–478; 4 figs.) II. *Royal Antiquarium.* Small marble tablet with relief of the child Horus holding various noxious creatures in his hands and standing on two crocodiles; not early but typical of a class of Egyptian amulets. Fragment of a Roman copy of a Hellenistic relief, on which a winged monster hangs from a tree before a bearded herm. Relief of a draught ox, perhaps a buffalo, with the pole of the cart ending in a ram's head; good Roman imperial work. Two heads from a Greek relief of the fourth century. Fragments of a large bronze *deinos*, from Southern Italy, with four little apotropaic sirens standing on the rim, and a Hermes Criophorus for the handle of the cover; friezes of conventional patterns. Bronze statuette of a nude girl, 25 cm. high, standing, without arms; to be restored as preparing for the bath (Fig. 7); Polyclitan, end of fifth century, one of the most beautiful small bronzes known. Two bronze statuettes of Isis, one of the Saitic period, and a goddess of Seleucia or some other city on the Tigris. Small bronze helmeted Eros shooting,

imperfect. Two small bronze figures for attaching to a flat surface, a trumpet blower, and a fallen barbarian. In terra-cotta, an oil-flask in form of a helmeted head with remains of painted and graven decoration; another as



FIGURE 7.—BRONZE STATUETTE IN MUNICH.

of Hermes, and a pileus with caduceus. Also a didrachm of Thracian Dicaea, fifth century; a Pontic drachm, perhaps from Amisus, with winged head of Perseus; two lead tokens of Hellenistic and Egypto-Roman date; two rim-medals, with portraits of Horace and Alexander. The following gems: Babylonian seal-cylinder of lapis lazuli, of about 2400 B.C.; Syrian rock-crystal of the sixth century; Old Persian four-sided pyramid, pierced;

a crouching ape; figures of a cock, a sphinx, a cicada; archaic seated idol-goddess from Sicily; archaic seated female figure from Athens; standing draped figure from Athens; two boys from Tanagra; winged Eros leaning on a herm with arms in attitude of oil-pourer; weaver's weight with stamped relief of Aphrodite; Roman lamps with Capitoline Triad of gods (from Cyrene), a pair of feet, a laurel wreath, masques, a skeleton, a barbarian attacked by a cock, a kneeling gladiator. Part of a wooden sarcophagus with stucco decoration, from Kertch. Lead medallions from Chios.

III. *Vase Collection.* Large geometric amphora, apparently from Athens, and a number of smaller geometric vases, one with double bale-handle, one a shallow bowl having an upright handle in addition to the two horizontal ones; a large covered bowl from Clazomenae with a frieze of women and an altar on the sides and animals on the cover; four specimens of the black glaze ware from Teano Sidicina. (J. SIEVEKING, cols. 476-492; 9 figs.) IV. *Coin Cabinet.* Three examples of the collection of coins found in Melos in the autumn of 1907, most of which went to Paris and to England. They belong to the period of the Delian Confederacy, while Melos was maintaining its independence of Athens, and are of the greatest historic importance, besides showing a number of new types, such as a wheel of ancient form, a ram's head, signifying the worship of Hermes, a youthful head

Sassanid honey-colored quartz, not earlier than the third century A.D. All these have lions and other Oriental symbolic animals and figures, the last being a very good imitation of the early style and possibly genuine Achaemenid. Among some thirty other stones of Hellenistic, Roman, and Etruscan work and a few of glass-paste, the finest is a genuine Greek piece of about 400 B.C., a crane shooting an arrow, cut on a bluish-white chalcedony. (G. HABICH, cols. 491-496.)

A New Gem Cutter.—A new artist's signature, *Κέρδων ἐποίησεν*, has been found in minute characters on a gem recently acquired for the Munich museum. The stone, a glass-paste, is one of the large, clear, convex gems cut by Hellenistic artists, and is assigned by the forms of the letters to the third century B.C. It represents Athena in an attitude like that of the Isthmian Poseidon of Lysippus. (G. HABICH, *Jb. Arch. I.* XXV, 1910, pp. 174-176; fig.)

NEUMAGEN.—**A Bronze Statuette.**—A bronze statuette (10 cm. high), recently found near the Roman canal at Neumagen, is published by E. Fölzer in *Röm. Mitt.* XXV, 1910, pp. 305-313. It represents Athena, wearing a Corinthian crested helmet.

NIEDERSTEIN.—**The Circular Wall on the Altenberg.**—The finding of remains of a citadel serving the Germans as a place of refuge in Roman times, is reported by G. KROPATSCHECK, *Röm.-Germ. Kb.* IV, 1911, pp. 7 f. The finds belong to the late La Tène period.

PLAIDT A. D. NETTE.—**Prehistoric Settlement.**—Recent excavations near Plaidt have revealed the existence of a prehistoric settlement. Remains of a house and circular huts were discovered with potsherds and other objects, dating from the late Stone Age and the La Tène period. (*Röm.-Germ. Kb.* IV, 1911, pp. 33-35.)

RHEINZABERN.—**Roman Legionary Stamps.**—Stamps of the *Leg. VII, G.* and others, found in Rheinzabern, are fully discussed by E. RITTERLING, *Röm.-Germ. Kb.* IV, 1911, pp. 37-42.

STAHL (KR. BITBURG).—**Inscribed Roman Fibulae.**—In *Röm.-Germ. Kb.* IV, 1911, pp. 22 f. (fig.), F. MARX publishes two inscribed Roman fibulae found in Roman graves near Stahl. The inscriptions read: *iudicio te amo* (which Marx translates: "I love you, because I have judgment"), and *veni Dado vita*, "Come, Dado, my life."

XANTEN.—**Roman Graves.**—Fifteen additional Roman graves have been excavated in the Roman cemetery near Xanten, containing cinerary urns and the usual objects. (*Röm.-Germ. Kb.* IV, 1911, pp. 21 f.)

AUSTRIA-HUNGARY

POLA.—**Discoveries in 1910.**—In 1910 especial attention was given to the location of the ancient town walls at Pola. The chief reservoir was discovered 35 m. south of the north gate to the citadel, and a cistern in the Via Castropola. Near the Porta Herculis were found remains of houses. A few unimportant inscriptions, inscribed tiles, terra sigillata bowls, and architectural fragments were also discovered. (A. GNIRS, *Jh. Oest. Arch. I.* XIII, 1911, Beiblatt, cols. 177-198; 15 figs.)

POROLISSUM.—**The Excavations of 1908-1909.**—In *Dolozatok az Erdélyi Nemzeti Múzeum érem-és régiségtárából*, II, 1911, pp. 70-105 (39

figs.), Á. BUDAY describes the excavations of 1908 and 1909 on the hill Pomet, which is probably the ancient Porolissum, Hungary. Remains of three houses, and a retaining wall to protect the road from landslides were found. Of the minor discoveries a fragmentary military diploma dating between 128 and 158 A.D. was the most important. A silver plaque shaped like an inverted heart, having upon it an eagle standing between two columns is probably some military distinction.

VIRUNUM.—Recent Excavations.—In *Jh. Oest. Arch. I.* XIII, 1911, Beiblatt, cols. 129-160 (28 figs.), R. EGGER describes the excavations at Virunum (Zolfeld) in 1909 and 1910. A rectangular building 34.60 m. by 24.60 m., evidently a temple, was uncovered. It had five rooms. No inscriptions were found near it; but some pieces of entablature and capitals adorned with acanthus leaves and others with flowers seem to have belonged to it. West of it a structure 22.35 m. by 11.10 m. probably served as the foundation for a monument. Both of these buildings lay within a great enclosure 71.40 m. by 76.40 m., on three sides of which were porticoes 5.75 m. wide lighted by windows. North of this precinct was another building, the walls of which were uncovered, but it is not yet clear what it was. Among the objects brought to light were fifty-seven Roman coins extending from Augustus to Constans I, a bronze dormouse, and several broken terra sigillata bowls.

AFRICA

DJEMILA.—An Altar of the Magna Mater.—In *B. Soc. Ant. Fr.* 1910, pp. 275-278, J. TOUTAIN publishes an altar recently found at Djemila, the ancient Cuicul. The goddess is represented in relief on the front of the altar sitting in an armchair, but not accompanied by lions or other animals. Above is the inscription, *[M]atri Deum Magnae Aug(ustae) sac(rum)[. C]aecilius Paulinus magister Dendrophorum flamen annuus curante C. Caecilio Ru[f]i[n]o v(otum) s(olvit) l(ibens) a(nimo).*

HAUT SEBAOU.—Inscribed Libyan Stelae.—In *C. R. Acad. Insc.* 1910, pp. 790-794, R. BASSET describes briefly the stelae with Libyan inscriptions, found by M. Boalifa in the district of Haut Sébaou. On one slab is a rudely traced figure of a horseman holding a shield and two spears. In front of him is an inscription of seven characters and behind the horse another of eight characters. Another slab represents very crudely a standing warrior with a fragmentary inscription. Two other short inscriptions were found.

UNITED STATES

BOSTON.—Acquisitions of the Museum of Fine Arts.—In the *Thirty-fifth Annual Report of the Boston Museum of Fine Arts*, pp. 59-67, a report is made of the acquisitions during 1910. Among these are: 1. Part of a decorative limestone relief from Ceglie, near Brindisi, which may have decorated a pediment about 4 m. long. In the centre a plant rises from acanthus leaves. Three large fluted stalks spread over the field to the right, and from them issue leaves, flowers, and spiral tendrils. On one of the latter Eros is seated, and behind him is part of a griffin. Date, fourth century B.C. 2. A Graeco-Roman marble relief, representing the lower half of a woman. 3. Left hand of a marble figure, holding an alabastron. 4. Four

limestone grave reliefs, and fragments of others, from Palmyra, representing the upper part of figures of the deceased. 5. Bronze statuette of a nude youth, seated on the ground with knees drawn up and hands resting on them. Height, 3.8 cm. Greek work of the fifth century B.C. 6. A woman's right arm of bronze, half life size, fourth century B.C. 7. A head of Eros, of the fourth century B.C. Height, 9.8 cm. 8. A bronze arm and hand, holding a strigil. Later Pergamene school. 9. A bronze statuette of a boy, standing with right foot advanced, wrapped in his himation, and with his head sunk on his breast. Height, 7.8 cm. Alexandrian style. 10. A bronze statuette of a standing boy, wearing the himation, but with his right arm and shoulder bare, and his chin resting on his right hand. Height, 5.4 cm. 11. A bronze group of three sleeping children. Greatest dimension, 5.3 cm. 12. Bronze statuette of a nude dwarf, wearing a conical cap. Height without base, 4.2 cm. 13. Thirty-two Greek vases, or parts of vases, including one signed *Ταλκίδης ἐποίησε*, and another *Ἐπιδουκος καλός*; also four vases attributed to Brygos, two to Euphronios, one to Epiktetos, one to Peithinos, and one to Douris. 14. Five terra-cottas, including one from Tanagra, representing a wolf scratching himself; a seated girl, with tambourine and fillet; and a standing boy, holding oenochoe and wine cup, from Lesbos. 15. Thirty Greek and Roman coins. 16. Left leg and foot of a draped, nude figure, probably of Zeus, of silver. Height, 7.8 cm.

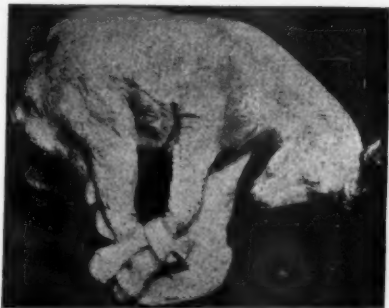


FIGURE 8.—FIGURE OF DEAD GOAT.



FIGURE 9.—SMALL ARCHAIC BRONZE BOREAS.

Metz. Mus. VI, 1911, pp. 90-94 (6 figs.), G. M. A. R(ICHTER) describes recent acquisitions of the Metropolitan Museum. These are a Roman portrait bust of the Flavian period; a Roman pilaster, 11 ft. 6 in. high, with floral design; a standing female figure of the Attic school of the third century B.C.; a dead goat, with feet tied together (Fig. 8), of late Greek or Roman workmanship; a fragmentary relief, representing Peitho seated

NEW YORK.—Recent Acquisitions of the Metropolitan Museum.—In *B.*

on a pillar, from a copy of the well-known relief in which Aphrodite is persuading Helen to join Paris; a small archaic Boreas, of bronze (Fig. 9); a circular bronze ornament, decorated with a youth fighting a griffin; 129 terra-cottas from Tarentum; several perforated disks, one inscribed *σπίμα*; a mould inscribed with various devices, perhaps used in stamping cakes. *Ibid.* pp. 30-36 (13 figs.), the vases are described. These include eight Attic geometric vases; a late Mycenaean amphora; two fragmentary vases with scenes painted in a brownish glaze over a yellowish slip; two red-figured vases in the styles of Smikros and Onesimos; a red-figured crater decorated with a warrior arming for battle; a large *stamnos* with a small, red-figured lion on the shoulder as its only decoration; a black-figured *epinetron* decorated with figures of women, working wool; two white lecythi; a small black cylix of the fourth century B.C., with a Syracusan tetradrachm in relief in the centre; an Arretine bowl inscribed TIGRAN ornamented with dancers. *Ibid.* pp. 53-59 (9 figs.), N. DE G. DAVIES describes some of the reproductions of the Egyptian wall paintings copied by him for the Museum. *Ibid.* pp. 109-112 (4 figs.), G. M. A. RICHTER describes the reproductions of Cretan antiquities recently acquired. These include frescoes and the Phaestus disk.

EARLY CHRISTIAN, BYZANTINE, MEDIAEVAL, AND RENAISSANCE ART

GENERAL AND MISCELLANEOUS

DAMASCUS.—Mosaics of the Mosque of the Omayyadae.—In *R. Arch.* XVII, 1911, p. 453 f., A. J. REINACH briefly describes some of the mosaics of the mosque of the Omayyadae at Damascus, which have recently been uncovered. Most interesting is a sort of "Tree of Jesse" which appears at right and left of an arcade. In the heart of the trees is a building with domes. Three similar buildings, separated by small trees, rest upon the top of the arcade. These mosaics equal the finest at Constantinople or Salonica.

EGYPT.—Coptic Monasteries.—In *B. Metr. Mus.* VI, 1911, pp. 19-29, there is a brief description, with plans, of the Coptic monasteries of the Wadi Natrun, which are being studied by the Egyptian expedition of the Museum.

GENEVA.—A New Gallery.—A new gallery has recently been inaugurated at Geneva, devoted to pictures, decorative art, armor, Roman antiquities, etc. A description of the museum appears in *Chron. Arts*, 1911, pp. 28-30. See p. 427.

JERUSALEM.—Newly Discovered Christian Remains.—In *R. Bibl.* VIII, 1911, pp. 119-125, F. M. ABEL reports the discovery of mosaics, fragments of wall, a hermitage, and other minor Christian remains on the west hill near the so-called Tomb of David at Jerusalem.

Armenian Manuscripts.—In *Mh. f. Kunstw.* III, 1910, pp. 249-260, A. BAUMSTARK gives a brief account of six Armenian illuminated Gospels discovered by him in the Armenian cathedral of St. James in Jerusalem. They date in the seventeenth and eighteenth centuries, but serve to illustrate earlier illumination by reason of the well-known conservatism of the

Eastern schools. The decoration consists of initials and initial pages, scenes, and marginal ornament.

METEORA.—*An Account of the Monasteries.*—In *Πρακτικά* for 1909, published 1911, pp. 211–273, A. ADAMANTIOU gives a general account of the Meteora monasteries, their architecture, wall paintings, ikons, etc., and explains what has been done to preserve them.

SAMARA.—*Excavations in the Palace of Al-Moutasim.*—In *C. R. Acad. Insc.* 1911, pp. 275–286 (7 figs.), H. VIOLET describes his excavations in the palace of Al-Moutasim, Samara. A great number of small ornamental fragments were brought to light, which are important for the origin of Mussulman art.

ITALY

THE BIRTHPLACE OF POLIDORO.—Polidoro is qualified as *da Lanzano* in documents. This town has hitherto been identified as the Lanzano near Lodi in Lombardy. Extracts from an old Latin historian of Lanciano in the Abruzzi, quoted in Vincenzo Bindi's *Monumenti storici ed artistici degli Abruzzi*, show that he was really a native of that town, the name of which in Venetian dialect became Lanzano. (G. GRONAU, *Rep. f. K.* XXXIII, 1910, pp. 545–546.)

BERGAMO.—*A Picture by Jacopo D'Antonello.*—In the Galleria Carrara at Bergamo is a Madonna attributed variously to Giacomo Comolli or Giacomo Cantolli, artists of whom nothing certain is known. These attributions rest upon a misreading of the signature, which should be rendered: “1490 xiiii . . . me(n)sis decebris | Jacobus. antolli. filiu no(n) | humani pictoris me. fecit.” Of an Antolli nothing is known. The name is better taken as an abbreviation of *Anto(ne)lli*, which gives us the signature of Jacopo, son of Antonello da Messina, a painter well known by documentary evidence, but hitherto unrepresented by a single picture. The evidence of the signature is borne out by the obvious reminiscences of Antonello's style in the painting. (P. TOESCA, *Rass. d'Arte*, XI, 1911, p. 16.)

BRESCIA.—*Newly Discovered Frescoes.*—Several frescoes have recently come to light in the choir of the church of S. Francesco at Brescia. They consist of a figure of Christ in half length, the four Evangelists, and four Fathers of the Church, figures of very large dimensions, not well preserved, which are thought to be by Romanino, some of them being mentioned in eighteenth-century guide-books as by him. Of much earlier date, it is said, and in part in far better condition than the other frescoes, is a large composition of the Madonna and Child enthroned, surrounded by adoring angels. These frescoes, especially the last-named composition, were thought so important that the Director of the Brera, accompanied by Professor Venturi, made a special journey to Brescia to inspect them, and the latter has suggested that the large composition may possibly be the work of Bembo. It will certainly be prudent to make an exhaustive search in the Brescian archives before venturing upon any attribution for this newly discovered work, which may prove of great interest in throwing light upon the development of painting at Brescia in the first half of the fifteenth century, to which it is said to belong. (*Athen.* March 25, 1911, p. 342.)

CITTÀ DI CASTELLO.—*Raphael's First Master.*—Documents recently discovered in the archives of Città di Castello show that Raphael,

when painting the Coronation of St. Nicholas for the church of S. Agostino, had a collaborator, viz., Evangelista di Pian di Meleto. In 1500, then, the date of the documents, Raphael was already working independently of Perugino, and must, therefore, have begun and finished his apprenticeship with him some years before. His collaboration with his father's disciple Evangelista indicates that he, and not Timoteo Viti, was Raphael's first master after his father's death. Evangelista had a part in the frescoes of the Cappella del SS. Sacramento in the Duomo of Urbino, but these are



FIGURE 10. — HEAD OF CHRIST; FRESCO BY BUFFALMACCO.

now gone, and the only existing work that can be ascribed to him is the Madonna and Saints in the Budapest gallery (there assigned to Giovanni Santi), which has affinities with the existing copy of the Città di Castello Coronation of St. Nicholas. (LISA DE SCHLEGEL, *Rass. d' Arte*, XI, 1911, pp. 72-75.)

FLORENCE. — Frescoes by Buffalmacco. — P. BACCI contributes to *Boll. Arte*, V, 1911, pp. 1-27, an account of the frescoes recently discovered in the Badia. There are four subjects which have been recovered in a frag-

mentary condition: the Mocking of Christ (see Fig. 10), the Via Crucis, the Flagellation, and the Death of Judas. The frescoes, which are inspired with much vigorous naturalism, are ascribed by Bacci to Bonamico, *dit* Buffalmacco. The article includes a reconstruction of the life and artistic personality of this painter.

The Portrait Exposition. — *Rass. d' Arte*, XI, 1911, pp. 78-92, is entirely devoted to a description by N. TARCHIANI of the "Mostra del Ritratto italiano," opened this year in the Palazzo Vecchio at Florence in honor of the fiftieth anniversary of the establishment of the Kingdom of Italy. The portraits date from the sixteenth century to the year 1861. Another article on the Exposition appears in *Z. Bild. K.* XLVI, 1911, pp. 173-183, contributed by C. RICCI.

MILAN. — **A New Giovanni Da Bologna.** — E. MODIGLIANI publishes in *Burl. Mag.* XVIII, 1911, pp. 18-23, a Madonna and Angels by Giovanni da Bologna, which was recently acquired by the Brera gallery. It is signed: IOVANES. DE BOLONIA. PINSIT, and belongs in date between his two other known works, the St. Christopher in the Museo Civico at Padua and the Madonna of the Confratelli della Scuola di S. Giovanni Evangelista in the Academy at Venice.

An Early View of S. Lorenzo. — The aspect of the church of S. Lorenzo before its semi-destruction in 1573 is of the greatest interest to students of architecture. This fact lends considerable importance to a small painting recently discovered in the sacristy of S. Lorenzo. It represents the "Confratelli del SS. Sacramento" issuing in procession from their church of S. Lorenzo, and headed by a priest who carries the viaticum to a dying man. In the background rises S. Lorenzo, showing plainly its four towers and the major portal flanked by columns. (D. SANT' AMBROGIO, *Rass. d' Arte*, XI, 1911, p. 17.)

PISA. — **Interpretation of a Painting.** — No satisfactory explanation has ever been given to a painting in the Museo Civico at Pisa, representing three maidens seated in a rocky landscape, approached from the right by a group of three cavaliers. The central of the three maidens is distinguished by a halo. W. F. STORCK has found a parallel to the painting in a Siennese picture of the Kaiser Friedrich Museum, in which the episode is portrayed in clearer fashion and represents the meeting of St. Margaret of Pisidia and her unwelcome suitor, the prefect Olybrius. (*Rep. f. K.* XXXIII, 1910, pp. 493-499.)

ROME. — **Discoveries under St. Crisogono.** — Interesting discoveries have been made in Rome, under the Church of St. Crisogono, in the Trastevere district, where excavations have for some time been carried on under the direction of Professor Marucchi, the Christian archaeologist. The church is said to have been founded by Pope Sylvester, in the fourth century, but was rebuilt first in 731, and later in the seventeenth century. The excavations brought to light some time ago a primitive basilica, with remains of the subterranean "confession" of the church, containing the altar, under which the martyrs were buried. It has now been discovered that the church, like so many early Christian places of worship, was included in an ancient Roman house, which was adapted for ecclesiastical uses, and decorated with paintings, including portraits of various popes, belonging probably to the eighth or ninth century A.D. There was also found, next to the apse,

a large hall, dating apparently from the twelfth century, the walls of which were painted with floral decorations, portraits, and heraldic designs. Two large sarcophagi were also unearthed, one plain, the other richly carved with a representation of the Good Shepherd in the style of the fifth century. (*Nation*, July 13, 1911, p. 42.)

A New Ottaviano Nelli.—U. GNOLI publishes in *Rass. d' Arte*, XI, 1911, p. 76, a Madonna and Angels in the collection of Sig. Pio Fabri, which he assigns on internal evidence to Ottaviano Nelli.

SPAIN

SANT PERE DE LA SEO D'URGELL.—Romanesque Frescoes.—In *Burl. Mag.* XIX, 1911, pp. 67-73, JOSE PIJOAN describes the frescoes recently discovered in the church of Sant Pere de la Seo d'Urgell, and in that of Pedret, both places in Catalonia. The apse of the former church is decorated with a Pantokrator surrounded by the symbols of the Evangelists, under which runs a border divided into panels, each containing a pair of saints. The chief fresco at Pedret decorates one of the subsidiary apses, and represents the Wise and Foolish Virgins. The Catalan archaeologists are inclined to date the frescoes at least as early as the eleventh century, while Dieulafoy assigns them to the twelfth.

FRANCE

FONTEVRAULT.—Tombs of the Plantagenets.—In the Abbey of Fontevault the tombs of Richard Coeur-de-Lion and Eleanor, and that of Henry II Plantagenet and Isabel of Angoulême have been discovered. There were remains of paintings and inscriptions. (*R. Arch.* XVII, 1911, p. 170, from *Le Siècle*, August 23, 1910.)

NARBONNE.—A Christian Inscription.—An epitaph recently brought to light at Narbonne is published in *C. R. Acad. Insc.* 1911, pp. 14-17, by A. HÉRON DE VILLEFOSSE. It reads: FL CASSIVS AGROECIAE / BENEMERENTI CONIVGI / IN SIGNO ✠ PAVSANTI / QVAE VIXIT ANN XVII / M IIII D V POSUIT IN PACE / A. W.

PARIS.—Acquisitions of the Louvre.—Recent additions to the Louvre are: a St. Sebastian, by Mantegna, bought for 200,000 francs from the Commune of Aigueperse (*Rass. d' Arte*, XI, 1911, pp. 7-8); a bust, by Giovanni della Robbia, and several pieces of Italian majolica, given by M. Georges Berger; a series of Persian pottery of the twelfth and thirteenth centuries (*Chron. Arts*, 1911, p. 10); a Brussels tapestry of the early sixteenth century, representing "the victims of Love appearing before Venus and Cupid" (*Chron. Arts*, 1911, p. 81); the collection of Comte Isaac de Camondo, a magnificent series of paintings and objects of decorative art of the eighteenth and nineteenth centuries (*ibid.* 1911, pp. 114-115); a Byzantine enamel representing St. Demetrius, of the end of the ninth or the beginning of the tenth century, from the collection of Count Zwenigorodski, the gift of Mr. J. P. Morgan, who recently bought this collection (*ibid.* p. 153).

A New Gentile da Fabriano.—A. COLASANTI publishes in *Boll. Arte*, V, 1911, pp. 33-35, a Madonna belonging to Mme. Sartoris, now in

the Musée des Arts décoratifs, which he assigns to Gentile da Fabriano, and dates shortly before 1423.

Identification of a Manuscript.—In the inventory of the manuscripts of Cardinal Georges d'Amboise in his castle of Gaillon, there appears the description of an illuminated Josephus. The device of the cardinal is found on a Josephus in the Bibliothèque Mazarine, certain miniatures of which are signed SE(RPIN), (JE)AN PISEUR, and HUSE. We have here, without doubt, the signatures of Jean Serpin, Jean Pichore, and Nicholas Hiesse, artists who are named in the accounts of the castle of Gaillon, as employed in the illumination of the cardinal's manuscripts. (F. DE MÉLY, *Gaz. B.-A.* IV, 1911, pp. 301-308.)

PERPIGNAN.—Sixteenth Century Portraits.—A. MAYEUX publishes in *B. Soc. Ant. Fr.* 1911, pp. 339-343, two portrait busts of wood, which were set up on the *cloture* of the chapel of the consuls of the church Vieux-Saint-Jean toward the middle of the sixteenth century.

PEYRUSSE and AUZON.—Mediaeval Frescoes.—In the church of Peyrusse (Haute-Loire) a series of frescoes, dating *ca.* 1100 has recently been discovered. The principal painting represents the Deposition of the Virgin. In the church at Auzon in the same department, frescoes of *ca.* 1300, have been found in the chapel of the Holy Angels. The subjects represented include an Apparition of St. Michael on Mt. Gargano, a St. Michael slaying the Dragon, which is reminiscent of the decoration of one of the chapels in the palace of the popes at Avignon, an indeterminate subject and, on the vault, the Virgin surrounded by saints and angels. (E. BABELON, *B. Soc. Ant. Fr.* 1911, pp. 359-361.)

GERMANY

ACQUISITIONS OF GERMAN MUSEUMS.—The Munich gallery has recently acquired the collection of A. von Carstanjen, by gift of his family. It numbers many important pictures, among them works by Holbein, Van Dyck, Frans Hals, and Rembrandt (*Chron. Arts*, 1911, p. 2). Recent acquisitions of the Kaiser-Friedrich Museum are: two wooden reliefs à jour, Spanish of the sixteenth century (*Ber. Kunsts.* XXXII, 1911, p. 79); seven Visigothic architectural fragments from Merida and Seville (*ibid.* pp. 148-150); a small bronze relief of a Bacchante, in the style of Agostino di Duccio; a medal dated 1467, and a bronze cast of the seal of the Bishop of Siponto, both by Gian Francesco Enzola; a bronze plaquette representing a siege, in a style resembling Filarete's; a small bronze medallion of the Virgin and Child with the infant St. John; an oval plaquette representing a group of gods by Valerio Belli; a bronze relief of Christ fallen under the Cross, after Raphael's Spasimo; a medallion representing Hercules and Atlas, in the style of Leone Leoni; a plaquette-portrait of the Doge, Francesco Foscari; a series of Italian and German medals and reliefs, notably a tondo of bronze representing the death of Mary, early fifteenth century (*ibid.* pp. 122-130); a portrait-study of a young lady, by Lucas Cranach the Younger (*ibid.* pp. 134-138); and a wooden relief of a Pietà of the end of the fifteenth century, of Rhenish origin (*ibid.* pp. 99-107).

BERLIN.—A Dürer Drawing.—M. J. FRIEDLÄNDER publishes in *Jb. Preuss. Kunsts.* XXXII, 1911, pp. 85-87, a drawing by Dürer, purchased at the Duval sale for the Berlin Kupferstichkabinett. It is dated 1521, and

signed with the usual monogram. The sheet contains nine figures of St. Christopher, and seems to bear some relation to an entry in Dürer's diary of that year, recording the making of such drawings for the painter Joachim de Patinir. But none of Patinir's St. Christophers correspond to the figures in the drawing.



FIGURE 11. — STATUE OF CHRIST AT LEIPZIG.

A New Bartolomeo Veneto. — In *Jb. Preuss. Kunsts.* XXXII, 1911, pp. 19-24, FRIDA SCHOTTMÜLLER discusses a portrait of a man in the Kaiser-Friedrich Museum in Berlin, which she assigns to Bartolomeo Veneto.

A Work by Pier Maria Pennachi. — DETLEV VON HADELN has made the interesting discovery that the signature on a picture in the Solly collection of the Kaiser-Friedrich Museum, which has hitherto baffled interpretation, is to be read not *petrus mario*, but *petrus maria*, and refers to Pier

Maria Pennachi. The difference between this painting and other works of his is to be explained by the fact that this is a youthful work, done when he was under the influence of his brother and master, Girolamo da Treviso, as is made clear by a comparison of the painting with Girolamo's Madonna and Saints in the church of S. Salvatore near Sussignana. (*Mh. f. Kunstw.* IV, 1911, pp. 276-277.)

COLOGNE. — **An Early Christian Eucharistic Spoon.** — F. WITTE publishes in *Röm. Quartalschrift*, 1911, pp. 19-25, a spoon in the recently opened Schnütgen Museum, which he believes to be Christian, and intended to be used in the sacrament. The decoration is strongly Oriental, thus bearing out Strzygowski's assumption of Oriental influence in the early mediaeval art of Cologne.

GROOSSZSCHÖCHER. — **A New Frans Hals.** — F. BECKER publishes in *Z. Bild. K.* XLVI, 1911, pp. 158-160, a portrait of a man in the castle of Graf Wedel, which he attributes to Frans Hals and dates ca. 1616-1629.

LEIPZIG. — **The Christ in the Nikolaikirche.** — F. LINDBERG communicates to *Z. Bild. K.* XLVI, 1911, pp. 89-91, a description of a stone statue of Christ as the "Man of Sorrows" (Fig. 11), which he discovered recently in the church of St. Nicholas in Leipzig. The figure dates about 1400, and seems to have affinities with the Saxon school, but the material points rather to Thuringia.

AUSTRIA-HUNGARY

BUDAPEST. — **Two Youthful Works by Palma Vecchio.** — The companion pictures in the Budapest gallery, one the bust of a young warrior and the other representing a maiden, are assigned to Palma Vecchio by DETLEV VON HADELN in *Mh. f. Kunstw.* IV, 1911, pp. 224-226.

SALZBURG. — **A Crucifixion Group of the School of Veit Stoss.** — W. VÖGE in *Mh. f. Kunstw.* IV, 1911, pp. 278-279, publishes a Crucifixion group of six figures now in the Museum Carolino-Augusteum in Salzburg, which he assigns to the school of Veit Stoss.

TEURNIA. — **An Early Church.** — In *Jh. Oest. Arch. I.* XIII, 1911, Beiblatt, cols. 161-176 (10 figs.), R. EGGER describes the excavation of an early Christian church at Teurnia (St. Peter im Holz) in 1910. An interesting mosaic was found in a good state of preservation. The church was probably destroyed shortly before the year 600.

GREAT BRITAIN

LONDON. — **A New Carpaccio.** — The curious panel once in the possession of Sir William Abdy and now in that of Messrs. Sully & Co., is assigned by C. PHILLIPS in *Burl. Mag.* XIX, 1911, pp. 144-152, to Vittore Carpaccio. It is signed ANDREAS MANTINEA? but the same signature appears on the Burial of Christ in the Berlin gallery, and is doubtless an ancient forgery in both cases, inasmuch as the Berlin picture is generally recognized to be by Carpaccio. The resemblance between the two pictures is strong, and the attribution is confirmed by comparison with other works of Carpaccio. The panel represents the dead body of Christ placed in sitting posture in the foreground of a Bellinesque landscape. On either side

of the central figure is an old man, in an attitude of meditation. One of these is St. Jerome, but the other, who appears again in the Berlin Burial, has never been satisfactorily explained. Phillips names the picture the Meditation on the Passion.

PORTSMOUTH. — Miniatures of the "Hours of Savoy." — The R. P. Dom Blanchard has discovered in the Episcopal library (Catholic) of Portsmouth, a series of miniatures which partially supply the lacunae in the manuscript of the early fifteenth century, known as the "Hours of Savoy," which was destroyed in the burning of the Library of Turin in 1904. (*C. R. Acad. Inscr.* 1911, pp. 192-193.)

UNITED STATES

PICTURES BY GERARD DAVID. — A series of eleven paintings by Gerard David is catalogued in *Z. Bild. K.* XLVI, 1911, pp. 183-189, by E. VON BODENHAUSEN and W. VALENTINER. All but three are found in American collections, as follows: in the Johnson collection at Philadelphia, a Madonna, and a Christ Blessing; in Mr. O. H. Kahn's collection New York, a Madonna and Angels, and a Christ and the Holy Women; a Marriage of St. Catherine in the collection of the New York Historical Society; a Crucifixion in the Metropolitan Museum; a Madonna Feeding the Child in the possession of R. De Forest, New York; and a Pietà in the possession of the antiquarian, Fischer, in Washington. The other pictures on the list are: an Adoration of the Child, which appeared in an exposition in Paris in 1878; a Christ taking Leave of his Mother in the National Gallery, Dublin; and a Pietà in the possession of H. Boehler in Munich.

ENGLEWOOD. — Pictures in the Platt Collection. — F. MASON PERKINS in *Rass. d'Arte*, XI, 1911, pp. 1-6, writes of the collection of Mr. D. F. Platt in Englewood, N. J. The pictures illustrated by photogravures are: a Madonna and Saints by a follower of Filippo Lippi, a Madonna of the School of Botticelli, a St. Jerome by Jacopo del Sellaio, a Madonna by Ambrogio Lorenzetti, a Madonna by Andrea di Bartolo, a Crucifixion by Niccolo da Foligno, an Annunziata by Sassetta, a Madonna by Giovanni Boccati, Two Saints by the same artist, and a portrait by Salviata. Another article is to follow.

NEW YORK. — Acquisitions of the Metropolitan Museum. — Recent acquisitions of the Metropolitan Museum are: a Venus, Mars and Cupid by Paolo Veronese (*Rass. d'Arte*, XI, 1911, p. 8); a Doge in Prayer before the Redeemer by Tintoretto, once the property of John Ruskin (*B. Metr. Mus.* VI, 1911, pp. 6-9); a painted wooden book-cover of the Biccherna at Siena, of the year 1343 (*ibid.* pp. 40-41); two sculptured pilasters of the school of Giovanni Pisano (*ibid.* pp. 44-45); two bronze lamps and a stand for a pen-holder, in the shape of a seated youth, by Riccio (*ibid.* pp. 108-109); a Judith and Holofernes by Cranach, from the Hoe collection (*ibid.* p. 124); a predella painting by Perugino, representing the Resurrection (*ibid.* p. 130); twenty-five drawings, ancient and modern, among them a Creation of Eve attributed to Raphael (*ibid.* pp. 139-140).

The Fraga Velasquez. — The Fraga Velasquez has recently become the property of H. C. Frick of New York. *Burl. Mag.* XVIII, 1911, pp. 5-13, contains an article on the picture by R. Fry, who says that he shares the

conviction of Beruete, that we have in it the original portrait of Philip IV, painted by Velasquez at Fraga, while the replica at Dulwich College is from the hand of Mazo. The virtuosity and evident rapidity betrayed in the *facture* are due to the conditions under which the portrait was painted. The king sat for a few days only and at leisure moments, being at the time engaged in an expedition against the French who were besieging Lerida.

AMERICAN ARCHAEOLOGY

GENERAL AND MISCELLANEOUS

NEW MEXICO. — **Prehistoric Sites in the Chama Basin.** — In *Rec. Past*, X, 1911, pp. 92-108 (20 figs.), J. A. JEANÇON describes four prehistoric sites in the Chama Basin, New Mexico. All of the ruins are in poor condition, but minor antiquities such as arrow-heads, pieces of pottery, etc., may be found on the surface. The writer also gives additional information about Tziipinguine.